### STATE OF UTAH

_	$\sim$	D	R.	А	2

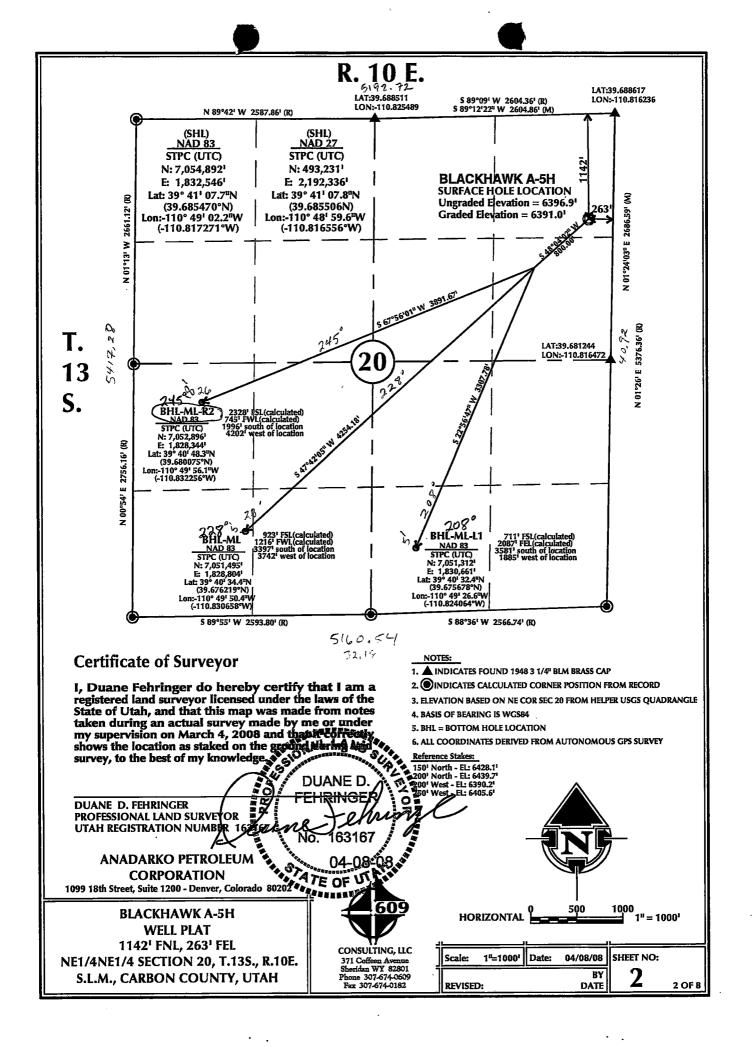
FOR	avi 3
,	
AMENDED REPORT	

(highlight changes)

Blackhawk A-5H BLM and State APD Forms UT Form 3 APD

DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

	APPLICATION FOR PE	RMIT TO DRIL	L	5. MINERAL LEASE NO:	6. SURFACE:
				FEE * See Page 1 SUPO 7. IF INDIAN, ALLOTTEE OR TE	
1A. TYPE OF WOR	K: DRILL X REENTER	DEEPEN		N/A	
			<b>V</b>	8. UNIT or CA AGREEMENT NA	ME:
B. TYPE OF WELL 2. NAME OF OPER		BM_SINGLE ZONE	X MULTIPLE ZONE	N/A	
	Petroleum Corporation			9. WELL NAME and NUMBER:	awk A-5H
3. ADDRESS OF O			PHONE NUMBER:	10. FIELD AND POOL, OR WILL	·
1099 18th \$	Street, Denver, CO 80202	STATE ZIP	720-929-6000	Helper / F	erron A
4. LOCATION OF V	VELL (FOOTAGES)			11. QTR/QTR, SECTION, TOWI MERIDIAN:	ISHIP, RANGE,
AT SURFACE	1142' FNL, 263' FEL Lat :	39.685470	Long: -110.817271		Sec. 20
AT PROPOSE	D PRODUCING ZONE: Three Horizontal (bird for	oot) orientation to BH	L See Attachment	T13S-R1	10E
	FSL, ±1216' FWL ML-L1 ±711' FSL, ±20		<u> 2328' FSL, ±745' FWL</u>	S.L.B.&M.	<del></del>
	MILES AND DIRECTION FROM NEAREST TOWN OR POST ( N 8.6 miles from Price, Utah	OFFICE:		12. COUNTY: Carbon	13. STATE
• •		T			
15. DISTANCE TO	NEAREST PROPERTY OR LEASE LINE (FEET)  263'	16. NUMBER OF ACRE	S IN LEASE: 6 acres	17. NUMBER OF ACRES ASSIGNED 160 acres	
18. DISTANCE TO	NEAREST WELL (DRILLING, COMPLETED, OR	19. PROPOSED DEPTE	<del>-1</del> :	20. BOND DESCRIPTION;	
APPLIED FOR)	ON THIS LEASE (FEET)		1,000'		
21 ELEVATIONS	263' SHOW WHETHER DF, RT, GR, ETC.):	ł	TE WORK WILL START:	Utah Statewide Bond: 22 23. ESTIMATED DURATION:	<u>4351</u>
	•				
6	396.9' Ungraded Ground Level	Ju	ily 15, 2008	45 Days Drilling, 7 Days 0	completion
24.	PROPOS	ED CASING AND C	EMENTING PROGRAM		
SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT	SETTING DEPTH	CEMENT TYPE,	QUANTITY, YIELD, AND SLURRY WE	EIGHT
13-3/8"	10-3/4", 32.75#, H-40, ST&C	0' - 500'	290 sks Class "A" plus 2	% Calcium Chloride + 0.25ll	o/sk Superflake
			Yield: 1.19 cft/sk. Densit	y: 15.6 ppg (100% excess b	v volume)
0.0449		0. 4000	<u> </u>		
8-3/4"	7", 20#, J-55, STC	0' - 4000'	598 sks Class "A" plus 2	2% Calcium Chloride + 0.25ll	J/sk Supertiake
			Yield: 2.06 ft/sk, Density	: 12.5 ppg (10% excess by v	olume)
Drift Diameter	Concentric Parasite Working String				
6.331'	5-1/2", 17#, J-55, ULT-Fj LHT	4.000'	** See Drilling Program	Attached for Details	
0.331	3-1/2 , 1/#, 3-33, OE1-FJ EN1	4,000	See Diming Frogram	Attached for Details	
25.	<u> </u>	ATTACHM	ENTS		
	OWING ARE ATTACHED IN ACCORDANCE WITH THE UTA	LI OIL AND CAS CONSERV	(ATION GENERAL DILLES:		
VERIFT THE FOLL	OWING ARE ATTACHED IN ACCORDANCE WITH THE DIA	IA OIL AND GAS CONSERV	VATION GENERAL ROLES.		
X WELL PLAT	OR MAP PREPARED BY LICENSED SURVEYOR OR ENGIN	IEER X	COMPLETE DRILLING PLAN		
			- 7		
EVIDENCE (	OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF	WATER	FORM 5, IF OPERATOR IS PER	RSON OR COMPANY OTHER THAN T	HE LEASE OWNER
NAME (PLEASE P	RINT) Debby J. Black (Debby.Black@anad	arko.com)	TITLE Staff Regulator	y Analyst (Direct 720-929-6	472)
	() 11 O ( Dlags				
SIGNATURE	Krolley Y. Fillele		DATE <b>April 14, 2008</b>		
(This space for Stat	te use only)	A A	pproved by the	RE	CEIVED
( opase ioi olai		TA Jude un . Optione	Itah Division of		n n n nnnn
		Oil	Gas and Mining	I AP	R 2 9 2008
				54.	atao tututo
API NUMBER	ASSIGNED: 43-007-31402	AP	PROVAL:	DIV. OF (	OIL, GAS & MINING
		Date:	07-01-08		
(44/0004)		$\mathcal{L}$			
(11/2001)		D	$\mathbf{x} = \mathbf{x} \mathbf{x} \mathbf{x} \mathbf{x} \mathbf{x} \mathbf{x} \mathbf{x} \mathbf{x}$		



**SURFACE – 1142 FNL 263 FEL** 515751 X 4392602 Y 39.684991 -110.816327

BHL - 923 FSL 1216 FWL 514601 X 4391635 Y 39.676295 -110.829758

BHL - 711 FSL 2087 FEL 515163 X 4391574 Y 39.675735 -110.823197

BHL - 2328 FSL 745 FWL 514463 X 4392062 Y 39.680145 -110.831348

### Blackhawk A-5H NENE Sec. 20 T13S-R10E Carbon County, Utah 1142' FNL and 263' FEL

Three Horizontal (bird foot) Orientation to Bottom Hole Locations SWSW Sec. 20 T13S-R10E Carbon County, Utah BHL-ML 923' FSL and 1216' FWL SESW Sec. 20 T13S-R10E Carbon County, Utah BHL-ML-L1 711' FSL and 2087' FEL NWSW Sec. 20 T13S-R10E Carbon County, Utah BHL-ML-R2 2328' FSL and 745' FWL

OPERATOR: ANADARKO PETROLEUM CORPORATION

### MASTER DRILLING PROGNOSIS

### 1. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:

Total Vertical Depth										
<u>Formation</u>	Measured	Sub Sea								
Mancos (Shale)	<u>Surf</u>									
Bluegate Shale	2613	3770								
Ferron Coal	3833	2550								
Ferron "A" Coal	3900	2471								
Base Ferron "A" Coal	3915	2456								
Proposed TD	4000									
Tununk Shale	4063	2320								

### 2, ESTIMATED DEPTH OF ANTICIPATED WATER, OIL, GAS OR MINERAL FORMATIONS

Primary Objective:

Ferron "A" Coal

Coalbed Zone

Only one coal seam will be tested for gas production to total depth. All shallow water zones will be protected with casing and cement. Cement will be circulated to surface to isolate formations.

The casing and cementing programs shall be conducted as approved to protect and/or isolate all usable water zones and any prospectively valuable deposits of minerals. All indications of usable water shall be reported to the authorized officer prior to running the next string of casing or before plugging orders are requested, whichever occurs first.

### 3. MINIMUM BOP REQUIREMENTS: (Refer to attached schematics)

- The BOPE shall be closed whenever the well is unattended.
- b) The BOPE shall be pressure tested when initially installed, whenever any seal subject to pressure testing is broken, after repairs, or every 30 days.
- c) Anadarko shall notify the Moab BLM office 24 hours prior to the BOPE test.
- d) All BOPE shall meet or exceed the requirements of a 2M system as set forth in Onshore Order No. 2.
- e) An accumulator unit will be used that has sufficient capacity to open the hydraulically-controlled choke line valve (if so equipped), close all rams plus the annular preventer and retain 200 psi above precharge on the closing manifold without the use of the closing pumps. The accumulator unit will be located at the master accumulator and on the rig floor. Hydraulic controls will be located at the master accumulator and on the rig floor. Manual controls (hand wheels) will also be installed on the blind and pipe rams.
- f) Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or 70 percent of internal yield pressure of casing if BOP stack is not isolated from casing. Pressure shall be maintained for at least 10 minutes or until requirements of test are met, whichever is longer.
- g) Annular type preventers shall be tested to 50 percent of rated working pressure. Pressure shall be maintained at least 10 minutes or until provisions of test are met, whichever is longer.
- Accessories to BOP's include upper and lower Kelly cock valves with handles and floor safety valve, drill string BOP.

### 4. SUPPLEMENTARY INFORMATION:

The primary objective of this well is to drill, stimulate and produce coalbed methane gas from the Ferron Sandstone Formation in the Helper Field in Carbon County, Utah. Anadarko will do this by barefoot completing three horizontal legs drilled from one mother wellbore in an under balanced situation. All three horizontal wellbores will be drilled in the same Ferron "A" coal bed in what Anadarko is referring to as a birds foot orientation. Wellbore geometry is engineered to maximize the opportunity to encounter natural fractures and permeability orientation within the formation, it is also designed to drill up-dip to aid in fluid removal from the wellbore.

A vertical core will be taken to obtain stratigraphic control in the well and once that is complete, the well will be plugged back and kicked-off horizontally. Once the Ferron Sandstone is encountered, an intermediate string will be set and cemented to surface. A 5-1/2" concentric drill string will then be be utilized as a parasite string inside the intermediate casing and will be set just inside the 7" shoe. From this point on, a dual-phase drilling system will be used to drill three horizontal wellbores with a 2-7/8" Drill String. Horizontal drilling will be controlled by Anadarko's proprietary geo-steering in order to stay within the Ferron "A" zone. A directional plan is attached.

Once the total measured depth has been reached, the concentric parasite string will be removed and the drilling rig will be released. A workover rig with then install tubing and a downhole pump. The well is not planned to be artificially stimulated.

A general directional plan is attached showing final planned bottom hole locations and kick-off points. It is important to note that no production hole will be encountered within the 660' section setback.

### 5. CASING PROGRAM:

Hole Size	Casing Size	Weight	Grade	Joint	Depth Set	New/Used	Collapse	Burst	Tension
13-3/8"	10-3/4"	32.75	H-40	ST&C	500'	New	880	1820	205,000
8-3/4"	T"	20	J-55	STC	0-4426'	New	2270	3740	234,000

For Concentric Parasite Working String

Drift Diameter	String Size	Weight	Grade	Joint	Depth Set	New/Used	Collapse	Burst	Tension
6.331"	5-1/2"	17	J-55	ULT-FJ LHT	4426'	New	4910	5320	229,000

For each leg, the remainder of the bore holes will be open hole.

Surface Casing:

Surface casing shall have centralizers on the bottom 3 joints of the casing, starting with the shoe joint. (minimum of 4 centralizers.)

Intermediate Casing:

```
a ) Burst = (Formation Pressure Gradient - Gas Gradient *(TVD - D) - (Backup Mud Weight * Depth)/(19.25))
= (0.65 - 0.10) * (4100' - 0') - (0.433 * 0') / 19.25
= 2255 psi
Safety Factor = Rating/Burst
= 4980/2255
= 2.36
```

```
b ) Collapse = (Depth of Investigation * Mud Weight - Evacutated Casing)

= [.052 * 9.0 ppg * 4000'] - [0.1 * 4000']

= 1472 psi

Safety Factor = Rating/Collapse

= 2270/1472

= 1.54

c) Tension Weight = (20 lbs/ft * 4000')* [1-(8.6 ppg/65.5 ppg)] + Margin of Overpull

= (20 lbs/ft * 4000')* 0.868 +150,000

= 219,496 lbf

Safety Factor = Rating/Tension

= 234,000/219,496

= 1066.08
```

### 6. MUD PROGRAM:

Anadarko intends to drill the surface hole section in an under balanced state with compressed air. When drilling the surface hole no gas will be encountered and a BOP system will not be used. The length of the blooie line will be sufficient to reach the middle of the reserve pit and therefore a variance is requested from Onshore Order No. 2 with regards to the 100 foot blooie line. Since no gas will be encountered, we will not have an ignition device. In the event that gas is encountered, a continuous ignition system will be installed and utilized on the remainder of the hole.

The intermediate hole section will be drilled with a combination of a compressed air based system and a non-ionic water based system. The air system will be used until core point is reached, at which point the system will be switched over to a non-ionic water based system until the 7" casing seat is reached. A BOP will be used for this entire system. Anadarko respectfully requests variance of Onshore Order No.2 with regards to the 100 foot blooic line, due to pad location and size limitations, Anadarko requests to place the blooic line roughly 60' away from the wellbore into the reserve pit. Continuous flares are not expected from this reservoir as it must be dewatered before the gas can desorb from the coal face. An automatic ignition source will be placed on the end of the blooic line for ignition purposes. This blooic line will be used for the production hole section as well.

The production hole section will be drilled in an under balanced state with the use of a parasite string set inside the 7" casing shoe. Compressed air will be pushed down the 5-1/2" - 7" annulus and a non-ionic water based system will be pumped down the drill string creating a multi-phase drilling fluid system.

Anadarko will use whip checks on all compressor equipment and hoses. There are several fire extinguishers placed on all equipment as well as up to date safety training and paper work.

While drilling with air, Anadarko will maintain sufficient mud and weight materials to kill the water flows or contain gas production if necessary. These materials will not be pre-mixed, but the ability to mix and pump will be on location.

Should water be used to drill through the surface casing setting depth, only fresh water will be used from the source listed in the MSUP.

A mud test shall be performed at least once every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.

### 7. CEMENTING PROGRAM:

The following is the proposed procedure for cementing the 10-3/4" surface casing and 7" intermediate casing:

Surface:

Designed to surface with 100% excess by volume Class "A" + 2% Calcium Chloride + 0.25lb/sk Superflake Yield: 1.19 cft/sk Density: 15.6ppg

Volume Pumped = (2 \* (Hole Diameter - Casing Diameter) \* Casing Length) / Yield = 290 sx

Kick-Off Plug:

Class "A" + 2% Calcium Chloride + 0.25lb/sk Superflake

Yield: 1.19 cft/sk Density: 15.6ppg

Volume to be based on rig site calculations sufficient for kick-off plug

Intermediate:

Designed to surface with 10% excess by diameter Class "A" + 2% Calcium Chloride + 0.25lb/sk Superflake

Yield: 2.06ft3/sk Density: 12.5ppg

 $Volume\ Pumped = (((1.1\ *\ Hole\ Diameter)\ -\ Casing\ Diameter)\ *\ Casing\ Length)\ \ /\ Yield$ 

598 sx

Volumes calculated to circulate cement from TD to surface.

### 8. LOGGING PROGRAM

Well completion and stimulation procedures will be determined following the evaluation of the drilling results and open hole logs. A "Sundry Notice" will be submitted for approval outlining the planned completion procedure at that time.

Cores:

180' of Whole Core from 3821' to 4000' in the Ferron Coal

DSTs:

None

Logs:

From	10
TD	Surface Casing
	TD TD TD

### 9. PRESSURE DATA, POTENTIAL HAZARDS

Bottom hole pressure gradient is anticipated to be a maximum of 0.65 psi/ft in the Mesaverde Coals. There is no history of hydrogen sulfide gas in the area and none is anticipated.

Anticipated bottom hole pressure  $(4000' \times 0.65) = 2600$ 

### 10. ANTICIPATED STARTING DATES AND NOTIFICATION OF OPERATIONS:

a) Starting Date

7/15/2008

Anticipated Days:

Drilling Days:

Completion Days: Testing Days: Approximately 45 Days Approximately 7 Days Approximately 30-60 Days

b) Notification of Operations:

Bureau of Land Management

Sub-Surface

Surface

Moab Field Office 82 East Dogwood Price Field Office 125 South 600 West Price, UT 84501

Moab, UT 84532 435-259-2100

435-636-3600

### Anadarko Petroleum Corporation Blackhawk A-5H

1,142' FNL 263' FEL (NE/4 NE/4)
Section 20 Township 13 South – Range 10 East
SLB&M
Carbon County, Utah
Fee Surface

BHL-ML: ±923' FSL ±1,216' FWL (SW/4 SW/4) Section 20 T13S R10E Federal Lease UTU071675 (at BHL)

BHL-ML-L1: ±711' FSL ±2,087' FEL (SW/4 SE/4) Section 20 T13S R10E Fee minerals (at BHL)

BHL-ML-R2: ±2,328' FSL ±745' FWL (NW/4 SW/4) Section 20 T13S R10E Federal Lease: UTU071675 (at BHL)

### SURFACE USE PLAN OF OPERATIONS

This Application for Permit to Drill (APD) is filed under the APD process as stated in Onshore Order No. 1 (OSO #1) and supporting Bureau of Land Management (BLM) documents. Anticipated specific concerns of the BLM representatives are addressed herein, as are specific stipulations from the BLM. An on-site meeting can be scheduled with Debby Black of Anadarko Petroleum Corporation (Anadarko) at (720) 929-6472.

\* Specific stipulations that may be discussed at the on-site meeting are shown as starred.

### WELL LOCATION AND INTRODUCTION:

The proposed location is at 1,142' FNL, 263' FEL (NE/4NE/4), Section 20: T13S-R10E, SLB&M. The well site was surveyed and staked at a geologically preferable location by 609 Consulting, LLC.

### **DIRECTIONS TO LOCATION**

Proceed in a Northerly direction from Price, Utah along U.S. Highway 6 approximately 4.1 miles to the junction of State Highway 139; exit right and proceed in an easterly direction, gradually changing directions to northerly approximately 1.4 miles to the junction of State Highway 157; exit right and proceed in an easterly direction gradually changing to a northeasterly direction approximately 2.2 miles to the junction of an existing well access road; exit left and proceed in a northerly then northeasterly direction for approximately 0.4 miles to the junction of an existing well access road leading to the existing Blackhawk A-3 well; turn left and proceed in a northwesterly direction for approximately 0.3 miles to the entrance to the existing Blackhawk A-3 well pad; follow proposed access road north, from the junction to

the existing Blackhawk A-3 well pad, approximately 0.2 miles to the proposed Blackhawk A-5H well location. Total distance from Price, Utah to the proposed Blackhawk A-5H well location is approximately 8.6 miles.

### 1) EXISTING ROADS

- A) The well is a development well.
- B) Existing roads within 1 mile consist of an existing oil field road to within 0.2 miles of location.
- C) Plans for improvement and/or maintenance of existing roads are to be maintained in as good or better conditions then at present and said maintenance will continue until final abandonment and reclamation of this drilling location.

### 2) PLANNED ACCESS ROADS (See Sheet 6)

 $\pm 1,056$ ' (0.2 miles) – Total new road construction – Fee surface (continued from existing road to the existing BlackHawk A-3 well)

We understand that none of the proposed access road and utility corridor for this location is on Federal surface and will likely not require a Right-of-Way (ROW). However, if needed, this Application for Permit to Drill can serve as a request for BLM to initiate a ROW application for access roads and water haul routes, if necessary. This ROW can continue up to the wellhead.

- A) Running surface will be crowned/ditched with a running surface ±16' and the total disturbed width to be ±50'. Plans for improvement and/or maintenance of existing roads are to maintain in as good or better conditions than at present. A regular maintenance plan will include, but not be limited to blading, ditching, and surfacing.
- B) Borrow ditches to be back sloped 3:1 or shallower.
- C) Maximum grades will not exceed BLM standards.
- Culverts and low-water crossings will be installed as needed prior to drilling. Drainage to consist of borrow ditches on both sides and "wind ditches" as appropriate. Riprap will be placed at the inlet and outlet at the culvert adjacent to the wellpad. Low water crossings may be used during drilling and upon completion if conditions dictate. Culverts will be installed prior to commencement of drilling operations. The borrow ditches along the proposed access road will be re-seeded if the well is completed as a producer. The reseeding of the borrow ditches will reduce the area utilized by this location.
- E) Surfacing material to consist of native material from borrow ditches. Road will be gravel surfaced. Gravel will be hauled by truck from a licensed facility.
- F) No major road cuts are necessary.
- G) Fence cuts, gates and/or cattle guards will be installed as necessary.
- H) Upgrade and maintain access roads as necessary to prevent solid erosion and accommodate year-round traffic.
- I) All equipment and vehicles will be confined to the access road, pad, and areas specified in the APD.
- J) The proposed access road will be constructed in accordance with roading guidelines established for oil and gas exploration and development activities as referenced in the joint BLM/USFS publications: <u>Surface Operating Standards for Oil & Gas Exploration and Development.</u> Third Edition and/or BLM Manual Section 9113 concerning road construction activities on projects under federal jurisdiction. The qualified construction

supervisor shall be an engineer, company superintendent or other representative who is competent and knowledgeable in oilfield road and drillsite construction, and able to speak for the operator. The dirt contractor, or drilling/completion foremen whose primary expertise is not in construction, do not qualify as construction supervisors.

- K) Construction activity shall not be conducted using frozen or saturated solid material or during periods when significant watershed damage (e.g. rutting, extensive sheet soil erosion, formation of rills/gullies, etc.) is likely to occur.
- L) Vegetative debris is not permitted in or under fill embankments.

### 3) LOCATION OF EXISTING WELLS

Within a 1-mile radius:

Proposed: None
Drilling/injection: None
Shut-In: None
Producing: 7

LOCATION OF EXISTING PRODUCING FACILITIES OPERATED BY Anadarko Petroleum Corporation

Within one mile: None

### 4) NEW PRODUCTION FACILITIES PROPOSED

- A) BLM will be contacted prior to construction of production facilities. A Sundry Notice (SN) will be filed if requested by BLM.
- B) Meter houses are skid mounted. A pump house may be installed if needed. Flow lines will be buried alongside or under the access road. Electric power will be buried wires and poles, also installed alongside the access road. Both will be within the corridor as surveyed by the archaeologist. Any changes from this plan will be submitted to the BLM Field Office by Sundry Notices. New flow lines will connect with existing flow lines, produced fluid will be piped to the existing tank battery.
- B) Dimension of Proposed Facility is 350' (north edge) x 193' (east edge) x 248' (south edge) x 210' (west edge) or less (approximately 56,500 ft<sup>2</sup>) for drilling operations. Total disturbance will be approximately 1.3 acres.
- C) Site preparation for production will be done with standard excavation equipment using native materials. Additional surface material will be obtained from commercial sources or the approved borrow area. Production facilities (including dikes), if used, must be placed on the cut portion of the location and a minimum of 15 feet from the toe of the back cut.
- D) Production equipment will be painted light reflective colors to limit evaporation and waste of liquid hydrocarbons, per BLM specifications.
  - All permanent above-the-ground structures, tank batteries, etc. if used, that will remain longer than six (6) months will be painted Olive Black, or as specified by BLM. The exception being that Utah Occupation Health and Safety Act Rules and Regulations are to be complied with where special safety colors are required.
- E) Production facilities are planned on location, and may vary according to actual reservoir discovered and will be engineered upon completion of well tests. Production facilities will be clustered and placed away from cut slopes and fill slopes to allow the maximum recontouring of cut and fill slopes.
  - If used, a dike will be constructed completely around the production facilities (e.g. production tanks, water tanks, and/or heater-treater). The dikes for the production facilities

must be constructed of compacted subsoil, hold the capacity of the largest tank, and be independent of the back cut. Any production pits will be fenced.

If the well is a producer, all production facilities not listed herein will be authorized by Sundry Notice.

- F) No facilities will be constructed off location except as noted in paragraph A) above.
- G) Rehabilitation of unneeded, previously disturbed areas will consist of backfilling and contouring the reserve pit area, back sloping and contouring all cut and fill slopes to the surrounding topography. No depressions will be left that trap water or form ponds. These areas will be re-seeded. Refer to plans for restoration of surface for additional details.
- H) Pits which contain oil, if used, will be overhead flagged. None are planned at this time.
- I) Proposed utility corridor information:

We understand that none of the proposed access road and utility corridor for this location is on Federal surface and will likely not require a ROW. However, if needed, this Application for Permit to Drill can serve as a request for BLM to initiate a ROW application for access roads and water haul routes, if necessary. This ROW can continue up to the wellhead.

The proposed utility corridor consists of approximately 0.2 total miles ( $\pm 1,056$ ') of ROW on Fee land.

The following items will be in one trench on one side of the access road:

- A gas transportation pipeline
- A produced water transportation pipeline

On the opposite side of the access road, the power supply (12470 volt power) for the well will be buried.

The gas transportation pipeline would transport recovered gas from this well to an existing interconnect with the existing pipeline infrastructure. The existing pipeline is operated by Anadarko, and the proposed pipeline will be constructed by Anadarko.

The utility corridor alignment will be located adjacent to the proposed access road ROW between this well and the existing portion of access road.

This utility corridor will begin at this well, then traverse southwesterly approximately 1,056' to tie in with the existing utility corridor for the BlackHawk A-3.

Ownership of the ROW to be utilized is as follows:

T13S R10E Sec. 20

Fee (American Electric

 $\pm 1.056$ 

 $\pm 0.2$  miles

Power)

# $\frac{\text{TOTAL LENGTH - NEW CONSTRUCTION TO BE UTILIZED ON FEE LANDS}}{\text{ROW} - \pm 0.2 \, \text{MILES}}$

The utility corridor pipeline ROW will be in the existing transportation ROW with minimal disturbance. Construction equipment will utilize the access road as much as possible. The ROW will consist of a 70' total width. The actual right of way will include a 50' width from the centerline of the road to the outside edge of the access road ROW as surveyed by the archeologist.

The gas gathering pipeline construction specifications are as follows:

Gas transportation pipeline:

Diameter:

5.349" AID (6" nominal)

Wall Thickness:

0.602"

Grade

**SDR 11** 

Design Pressure:

100 psig

**Actual Pressure:** 

60-95 psig

Pressure Test Fluid:

Air

Pipeline Depth:

36"-48"

The water gathering pipeline construction specifications are as follows:

Water gathering pipeline:

Diameter:

4" (nominal)

Wall Thickness:

1.000"

Grade

SDR 9

Design Pressure:

100 psig

Actual Pressure:

60-95 psig

Pressure Test Fluid:

Air

Pipeline Depth:

36"-48"

The allocation and sales meters will be located in the immediate vicinity of the wellhead unless other wise modified by a Sundry Notice.

- Pipeline shall be constructed as shown on the attached map and plat. Graders shall i) be used to construct or to clear the pipeline ROW wherever feasible. Angle dozers would be used if terrain dictates. The ROW shall not be cleared more than an additional fifty (50) feet wide (preferably five (5) feet wide on the soil stockpile side, and twenty (20) feet wide on the working side of the trench minimum) without approval. Bladed materials shall be placed back into the cleared route once construction is completed. Pipeline to be welded and dragged with a dozer into place. Alternatively, certain portions of the pipeline may be constructed by laying pipe in the existing road borrow ditch, picking the pipe up with side boom cats, then welding and placing along side of the road. All construction will be with as little surface disturbance as possible.
- Pipeline construction shall not block nor change the natural course of any drainage. ii) Trenches will be dug with 1-4 backhoes; the number is subject to availability at the time of construction. A trencher would be used only if the backhoes are not available. Suspended pipelines, which are not currently anticipated but if needed, shall provide adequate clearance for maximum runoff.
- Pipeline trenches shall be compacted at road crossings during backfilling. Pipeline iii) trenches shall be maintained in order to correct settlement and erosion. Road crossings will be trenched to a depth of five (5) feet prior to placing the pipeline in the trench. Following the placement of the pipeline into the trench all open road cuts will backfilled and compacted in order to maintain the integrity of the existing road.
- The pipeline will be tested with air prior to filling the trench. iv)
- Minimal water will be needed as this well will be air-drilled. When water is v) needed, it will be obtained from the city of Price.

Water requirements are anticipated to be minimal or less than approximately 10,814 bbls (454,188 gallons or 1.40 acre-feet).

- vi) All above ground permanent structures including production equipment (valving and piping, etc.) will be painted a non-contrasting color to blend harmoniously with the surrounding landscape, as specified by BLM.
- vii) Topsoil, as available, will be removed prior to pipeline construction from along the working side of the pipeline ROW and stockpiled for future reclamation. Topsoil depth of 6" to be removed as stipulated by BLM.
- viii) Pipeline markers will be installed where appropriate.
- ix) Pipeline construction is anticipated to be approximately three (3) to six (6) weeks.
- x) Anticipated equipment area as follows:

BlackHawk A-3, SE/4 NE/4 Sec. 20 T13N R11E. This is an existing well.

- xi) Anticipated full time personnel are as follows:
  - 1 Supervisor
  - 1 Pipeline supervisor
  - 3 Trenching crew (welders with helpers)
  - 3 Trucks
  - 3 Dozer, Track hoe, Blade

Part-time technical support persons will be on-site from time to time as necessary.

xii) Waterbars are to be constructed at least one (1) foot deep, on the contour with approximately two (2) feet of drop per 100 feet of waterbar to ensure drainage, and extended into established vegetation.

All waterbars are to be constructed with the berm on the downhill side to prevent the soft material from silting in the trench. The initial waterbar should be constructed at the top of the backslope. Subsequent waterbars should follow the following general spacing guidelines:

% SLOPE SPACING INTERVAL (feet)

2 or <	200
2 - 4	100
4 - 5	75
5 or	50

### 5) LOCATION OF WATER SUPPLY

- A) Minimal water will be needed as this well will be air-drilled. When water is needed, it will be obtained from the city of Price.
- B) Anticipated water use is as follows:
  Air drilling will be used, so the mud drilling water requirements will be minimal, if any.

### 6) SOURCE OF CONSTRUCITON MATERIALS

- A) Construction materials will consist of native materials from borrow ditches and location areas.
- B) Surfacing materials will be obtained form available permitted sources, if needed, and consist of pit gravel. Gravel will be hauled by truck from a licensed facility.

### 7) WASTE DISPOSAL

- A) Drill cuttings will be buried in reserve pit when dry.
- B) Drilling fluid will be evaporated and then buried in the reserve pit when dry.
- C) Reserve pit layout is illustrated on Sheets 3 and 4.

- \* D) Reserve pit will be lined with a synthetic liner 12 mil or thicker. The reserve pit liner shall be made of any manmade synthetic material of sufficient size and qualities to sustain a hydraulic conductivity no greater than 1 x 10<sup>-7</sup> cm/sec after installation and which is sufficiently reinforced to withstand normal wear and tear associated with the installation and pit use thereof. The liner shall be chemically compatible with all substances that may be put into the pit.
  - E) Reserve pit will be fenced on three sides during drilling operations, and on fourth side at time of rig release. Pit will remain fenced until backfilled.
- \* F) If used, a flare pit for air drilling will be located minimum 100' from wellbore.
  - G) Produced fluid will be contained in test tanks during completion and testing.
- \* H) Sewage disposal facilities will be in accordance with State and Local Regulations. Sewage may not be buried on location or put in a borehole. Utah Department of Environmental Quality (UDEQ) Regulations prevent this unless a UDEQ Permit is obtained.
- \* I) Garbage and other waste burnable waste will be contained in a portable trash cage which will be totally enclosed with small mesh wire. Cage and contents will be transported to and trash dumped at a WDEQ approved Sanitary Landfill upon completion of operations.
  - J) Trash will be picked up if scattered and contained in trash cage as soon as practical after rig is moved off.
  - K) Upon release of the drilling rig, rathole and mousehole will be filled. Debris and equipment not required for production will be removed.

### 8) ANCILLARY FACILITIES

No ancillary facilities will be necessary.

### 9) WELLSITE LAYOUT(See Sheets 3 and 4)

Note: <u>Bureau of Land Management will be contacted prior to reserve pit construction and provided an opportunity to inspect the pit prior to filling with water.</u>

- A) See attached drill site plat and cut/fill diagram.
- B) Roads and well production equipment, such as tanks, treaters, separators, vents, electrical boxes, and equipment associated with pipeline operation, will be placed on location so as to permit maximum interim reclamation of disturbed areas. If equipment is found to interfere with the proper interim reclamation of disturbed areas, the equipment may be moved so proper recontouring and revegetation can occur.
- C) If there is snow on the ground when construction begins, the operator will remove it before the soil is disturbed, and pile it downhill from the topsoil stockpile location.
- D) Both backslope and foreslope will be constructed no steeper than 1½:1.
- E) Erosion control measures will be applied pursuant to Anadarko's General Permit to Discharge Stormwater under the Utah Pollutant Discharge Elimination System and accompanying Stormwater Pollution Prevention Plan.

### 10) SURFACE PREPARATION

(General)

- A) Salvaging and spreading topsoil will not be performed when the ground or topsoil is frozen or too wet to adequately support construction equipment. If such equipment creates ruts in excess of four (4) inches deep, the soil will be deemed too wet.
- B) Earthwork for interim and final reclamation must be completed within six (6) months of well completion or plugging (weather permitting).

- C) In areas that will not be drill-seeded, the seed mix will be applied and fertilized per BLM's Conditions of Approval (COAs).
- D) No seeding will occur from May 15 to September 15. Fall seeding is preferred and will be conducted after September 15 and prior to ground freezing. Spring seeding will be conducted after the frost leaves the ground and no later that May 15.
- E) Annual or noxious weeds shall be controlled on all disturbed areas as directed by the Field Office Manager. An intensive weed monitoring and control program will be implemented beginning the first growing season after interim and final reclamation. Noxious weeds that have been identified during monitoring will be promptly treated and controlled. A Pesticide Use Proposal (PUP) will be submitted to the BLM for approval prior to the use of herbicides. All reclamation equipment will be cleaned prior to use to reduce the potential for introduction of noxious weeds or other undesirable non-native species. The operator will coordinate all weed and insect control measures with state and/or local management agencies.
- F) Reclaimed areas will be monitored annually. Actions will be taken to ensure that reclamation standards are met as quickly as reasonably practical.
- G) Reclamation monitoring will be documented in an annual reclamation report submitted to the AO by December 31. The report will document compliance with all aspects of the reclamation objectives and standards, identify whether the reclamation objectives and standards are likely to be achieved in the near future without additional actions, and identify actions that have been or will be taken to meet the objectives and standards. The report will also include acreage figures for: Initial Disturbed Acres; Successful Interim Reclaimed Acres; Successful Final Reclaimed Acres. Annual reports will not be submitted for sites approved by the AO in writing as having met interim or final reclamation standards. Any time 30% or more of a reclaimed area is redisturbed, monitoring will be reinitiated.
- H) The AO will be informed when reclamation has been completed, is successful, and the site is ready for final inspection.

### **INTERIM RESTORATION (Production)**

- A) Rehabilitation of unneeded, previously disturbed areas will consist of backfilling and contouring the reserve pit area, back sloping and contouring all cut and fill slopes. These areas will be re-seeded.
- B) Wellpad size will be reduced to minimum size necessary to conduct safe operations. Cuts and fills will be reduced to 3:1 or shallower.
- C) Reserve pits will be closed and backfilled as soon as the pit contents are dry enough to do so, or no later than the end of the next full summer following rig release, whichever comes first, to allow sufficient time for the pit contents to dry. Reserve pits remaining open after this period will require written authorization of the Authorized Office (AO). Immediately upon well completion, any hydrocarbons or trash in the reserve and flare pits will be removed. Pits will be allowed to dry, be pumped dry, or solidified in-situ prior to backfilling.
- D) Following completion activities, pit liners will be buried to prevent their reemergence to the surface and interference with long-term successful revegetation. If it was necessary to line the pit with a synthetic liner, the pit will not be trenched (cut) or filled (squeezed) while containing fluids. When dry, the pit will be backfilled with a minimum of five (5) feet of

- soil material. In relatively flat areas, the pit area will be slightly mounded to allow for settling and to promote surface drainage away from the backfilled pit.
- E) The portions of the cleared well site not needed for operational and safety purposes will be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Sufficient level area will remain for setup of a workover rig and to park equipment. In some cases, rig anchors may need to be pulled and reset after recontouring to allow for maximum interim reclamation.
- \* F) Topsoil will be evenly respread and aggressively revegetated over the disturbed area not needed for all-weather operations back to the rig anchors, including road cuts and fills and to within a few feet of the production facilities, unless an all-weather, surfaced, access route or small "teardrop" turnaround is needed on the well pad.
  - G) Initial seedbed preparation will consist of backfilling, leveling, and ripping all compacted areas. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding. Seeding will be conducted no more than 24 hours following completion of final seedbed preparation. A certified weed-free seed mix designed by BLM (shown below) to meet reclamation standards will be used. The seed mix will be used on all disturbed surfaces including pipelines and road cut and fill slopes.
  - H) To help mitigate the contrast of recontoured slopes, reclamation will include measures to feather cleared lines of vegetation and to save and redistribute cleared trees, debris, and rock over recontoured cut and fill slopes.
  - I) A proposed seed mixture for this location in Salt desert shrub habitat is:

Indian ricegrass (Nezpar)	Achnatherum hymenoides	2.0
Squirreltail	Elymus elymoides	2.0
Galleta	Hilaria jamesii	2.0
Russian wildrye	Psathyrostachys juncea	2.0
Gooseberryleaf globemallow	Sphaeralcea grossulariifolia	0.5
Palmer penstemon (Cedar)	Penstemon palmeri	0.5
Winterfat	Krascheninnikovia lanata	1.0
Fourwing saltbush	Atriplex canescens	1.0
Forage kochia	Kochia prostrata	<u>0.5</u>
_		11.5

- J) Reclamation will be considered successful if the following criteria are met, or as specified by BLM:
  - · 70 percent of predisturbance cover
  - · 90 percent dominate species \*
  - · Erosion features equal to or less than surrounding area
- \* The vegetation will consist of species included in the seed mix and/or occurring in the surrounding natural vegetation.

### FINAL RESTORATION (P & A – Removal of equipment)

- A) Flowlines on location will be removed before site reclamation and all flowlines between the wellsite and production facilities will remain in place and will be filled with water.
- B) If necessary to ensure timely revegetation, the pad will be fenced to BLM standards to exclude livestock grazing for the first two growing seasons or until seeded species become firmly established, whichever comes later. Fencing will meet standards found on page 18 of the Gold Book, 4<sup>th</sup> Edition, or will be fenced with operational electric fencing.
- C) Revegetation will be accomplished by planting mixed grasses as specified below. Revegetation is recommended for road area as well as around production site.
- D) A proposed seed mixture for this location in Salt desert shrub habitat is:

Indian ricegrass (Nezpar)	Achnatherum hymenoides	2.0
Squirreltail	Elymus elymoides	2.0
Galleta	Hilaria jamesii	2.0
Russian wildrye	Psathyrostachys juncea	2.0
Gooseberryleaf globemallow	Sphaeralcea grossulariifolia	0.5
Palmer penstemon (Cedar)	Penstemon palmeri	0.5
Winterfat	Krascheninnikovia lanata	1.0
Fourwing saltbush	Atriplex canescens	1.0
Forage kochia	Kochia prostrata	0.5
-	_	11.5

- E) Initial seedbed preparation will consist of backfilling, leveling, and ripping all compacted areas. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding. Seeding will be conducted no more than 24 hours following completion of final seedbed preparation. A certified weed-free seed mix designed by BLM (shown below) to meet reclamation standards will be used. The seed mix will be used on all disturbed surfaces including pipelines and road cut & fill slopes.
- F) Distribute topsoil, if any remains, evenly over the location, and seed according to the above seed mixture. If needed the access road and location shall be ripped or disked prior to seeding. Perennial vegetation must be established. Additional work shall be required in case of seeding failures, etc.
- G) All disturbed areas, including roads, pipelines, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends indistinguishably with the surrounding landscape. Resalvaged topsoil will be spread evenly over the entire disturbed site to ensure successful revegetation. To help mitigate the contrast of recontoured slopes, reclamation will include measures to feather cleared lines of vegetation and to save and redistribute cleared trees, woody debris, and large rocks over recontoured cut and fill slopes.
- H) BLM will not release the operator's bond until the area has been successfully reclaimed (evaluation will be made after the first growing season) to the standards of the surface owner or surface management agency.
- I) An above-round tubular metal dry-hole marker will be erected over the drill-hole upon cessation of drilling and/or testing operations. The marker will be inscribed with the operator's name, well number, well location, and federal lease number. Upon request of the surface owner, the casing may be cut off three (3) feet below reclaimed ground surface (or below plow depth) with a metal plate affixed to the top providing the same

well information as stated above. This must consist of a piece of pipe not less than four inches in diameter and ten fee in length, of which four feet shall be above the general ground level and the remainder being imbedded in cement. The tope of the pipe must be closed by a welded or screw cap, cement or other means.

J) The Area Manager, Bureau of Land Management, Price Field Office, will be contacted if there are any questions concerning the above rehabilitation stipulations (435) 636-3600 is the BLM contact for this location. All rehabilitation work, including seeding, will be completed by a certified contractor if the well is a dry hole.

#### SURFACE OWNERSHIP 11)

Surface Owner

Drillsite/Access

Nelson L. Kidder, P.E., Director Reclamation & Coal Development American Electric Power Service Corp. Fuel, Emissions & Logistics 155 W. Nationwide Blvd. Columbus, OH 43215 Office: 614-583-6080

#### **GENERAL INFORMATION** 12)

- The project area is situated within the Colorado Plateau physiographic province, in the A) lowlands that encircle the northern edge of the San Rafael Swell. The Price River drainage (Castle Valley) is located to the west and south of the project area; the Coal Creek drainage is located to the east of the project area, and confluences with the Price River south of the project area near the town of Wellington.
- Topographic and geologic features poorly bedded mixture of silt, sand, pebbles, cobbles, B) and boulders derived from adjacent uplands formed by the Book Cliffs.
- C) Soil characteristics - clay
- Flora consists of: Native grasses, Juniper. D)
- Fauna none observed. Typically present: deer, elk, antelope, coyotes, rabbits, birds, and E) rodents.
- Concurrent surface use grazing and hunting. F)
- G) Mineral Lessor - Bureau of Land Management

S/2NW/4; N/2SW/4; SW/4SW/4

Price Field Office 125 South 600 West

Price, UT 84501

Phone: 435-636-3600

Union Pacific Railroad Company

S/2NE/4 South of Railroad;

NW/4SE/4; SW/4SE/4; SE/4SW/4

c/o McLendon Management Company, LLC

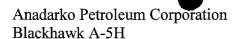
Attn: Rob E. McLendon 2420 Springs Drive, Suite 210 Normal, OK 73069; and c/o Farmers National Company Attn: Terry Young 403 S. Cheyenne, Suite 800 Tulsa, OK 74103-3671

- H) Proximity of water, occupied dwellings or other features: ±500' northwest an intermittent drainage.
- I) Archaeological, cultural and historical information to be contained in a report sent under separate cover by SWCA Environmental Consultants.
- J) Construction activity shall not be conducted using frozen or saturated solid material or during periods when significant watershed damage (e.g. rutting, extensive sheet soil erosion, formation of rills/gullies, etc.) is likely to occur.
- K) The operator shall be responsible for the prevention and suppression of fires on public lands caused by its employees, contractors or sub-contractors. During conditions of extreme fire danger, surface use operations may be limited or suspended in specific areas.
- L) Unless otherwise exempted, free and unrestricted public access shall be maintained on the lease and associated ROWs.
- M) Facilities approved by the Application for Permit to Drill that are no longer included within the lease, due to a change in the lease or unit boundary, shall be authorized with a ROW.
- N) <u>Historic, Cultural, and Paleontological Resources</u>
  The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the authorized officer (AO). Within five (5) working days the AO will inform the operator as to:
  - whether the materials appear eligible for the National Register of Historic Places;
  - the mitigation measures the operator will likely have to undertake before the site can be used (assuming in site preservation is not necessary); and,
  - a timeframe for the AO to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the finds of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of the mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible fro mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed the operator will then be allowed to resume construction.

"The holder of this authorization shall immediately bring any paleontological resources or fossils discovered as a result of operations under this authorization to the attention of the authorized officer. The holder shall suspend all activities in the vicinity of such discovery until notified to proceed by the authorized officer. The authorized officer will evaluate, or will have evaluated, such discoveries not later than five (5) working days after being notified, and will determine what action shall be taken with respect to such discoveries. The decision as to the appropriate measures to mitigate adverse effects to significant paleontological resources will be made by the authorized officer after consulting with the holder. The holder may be responsible for the cost of any investigations necessary for the evaluation, and for any mitigative measures."

O) Anadarko Petroleum Corporation maintains a file, per 29 CFR 1910.1200(g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances which are used during the course of construction, drilling, completion, and production operations for this project. Hazardous materials (substances) which may be



Page 13
Surface Use Plan of Operations

transported across these lands may include drilling mud and cementing products which are primarily inhalation hazards, fuels (flammable and/or combustible), materials that may be necessary for well completion/stimulation activities such as flammable or combustible substances and acids/gels (corrosives). The opportunity for Superfund Amendments and Reauthorization Act (SARA) listed Extremely Hazardous Substances (EHS) at the site is generally limited to proprietary treating chemicals. All hazardous substances, EHS, and commercial preparations will be handled in an appropriate manner to minimize the potential for leaks or spills to the environment.

### LESSEE'S OR OPERATOR'S REPRESENTATIVE(S):

### Operator

Corporate Office:

Anadarko Petroleum Corporation 1099 18<sup>th</sup> Street Denver, CO 80202 (720) 929-6000

Jim Klechner, Vice President, Operations Reed Scott, General Manager, Rockies Ann Puchalski, Senior Geologist Grant Schluender, Drilling Engineer II Debby Black, Staff Regulatory Analyst \*\*

Field Office:

60 South 700 East, Unit #1 Price, UT 84501 (435) 637-3044

Jim Hartley, Production Superintendent

\*\* Contact with any questions regarding this application

### **CERTIFICATION:**

I hereby certify that Anadarko Petroleum Corporation and its contractors and sub-contractors are responsible for the operations conducted under this application subject to the terms and conditions of the mineral lease. Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Anadarko Petroleum Corporation under their nationwide bond, BLM Bond No. WYB000291.

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Date: April 14, 2008

Debby N. Black

Staff Regulatory Analyst

Anadarko Petroleum Corporation

Stack

Well: Blackhawk A-5H

1,142' FNL 263' FEL (NE/4 NE/4)

Section 20 Township 13 South - Range 10 East SLB&M

Carbon County, Utah

Fee Surface

I certify that Anadarko Petroleum Corporation has reached an agreement with

Nelson L. Kidder, P.E., Director

Reclamation & Coal Development American Electric Power Service Corp.

Fuel, Emissions & Logistics 155 W. Nationwide Blvd.

Columbus, OH 43215

Office: 614-583-6080

as to the requirements for the protection of surface resources and reclamation of disturbed areas and/or

damages in lieu thereof. If an agreement has not been reached, Anadarko Petroleum Corporation will

comply with the provisions of the law or regulations governing the Federal or Indian right of reentry to

the surface (43 CFR 3814).

Date: April 14, 2008

Debby J. Black

Staff Regulatory Analyst

Anadarko Petroleum Corporation

Black

### CERTIFICATION STATEMENT

WELL NAME: Blackhawk A-5H

Surface Location: FEE

BHL – ML: Federal Minerals UTU071675 (at BHL)

BHL – ML-L1: Fee Minerals (at BHL)

BHL - ML-R2: Federal Minerals UTU071675 (at BHL)

I hereby certify that I, or person under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in the plan are, to the best of my knowledge, true and correct; and that the work associated with operations herein will be performed by HP 298 rig., and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false

direct. 720-929-6557

statement.

Name and Title:

Grant Schluender/ Drilling Engineer

Dated this 14th day of April, 2008.



Target Under Surface Location 4043.00 TARGET TOP TVD 228.00 DIP AZ 2.50 DIP DEG 4053.00

Survey Report-Curve

OPERATOR:

LOCATION:

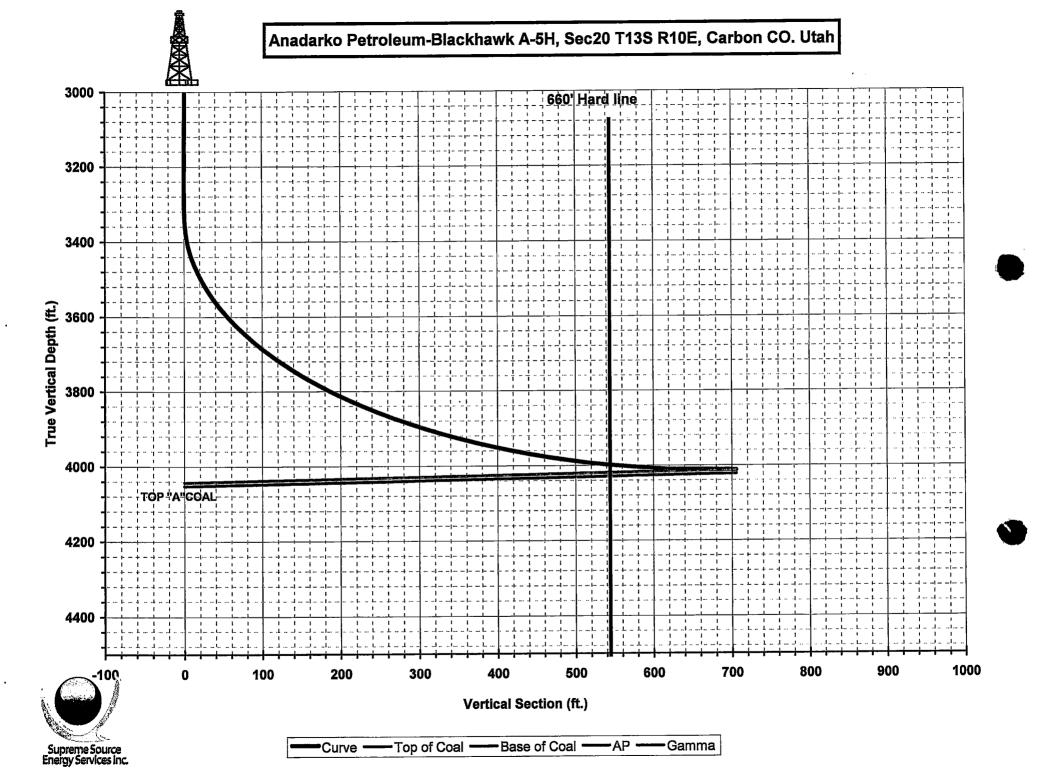
WELL:

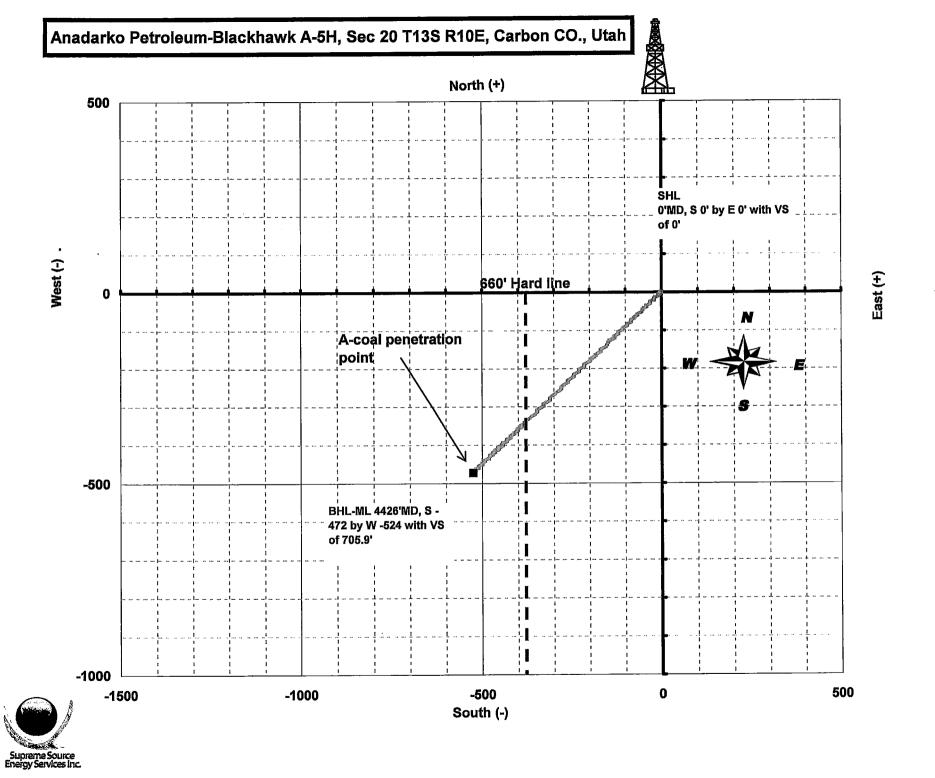
Anadarko Petroleum Corporation BlackHawk A-5H Sec20 T13S R10E Carbon Cty, Utah

START: FINISH:

BASE TARGET TVD 228.00 DIP AZ 2.50 DIP DEG

LOOK HOIL.				• •								
				***************************************	,,,,,,	PROPOSE	D DIRECTION:	228.00		DIP DEG		2.50
MIN. CURVATURE	E CALCULATION:	3										
SUR	MD	INCL.	AZM.	TVD	N-S	E-W	SECT.	DLS		TARGET		TARGET
NUM	ft	•		ft	ft	ft	ft	%100 ft	POSITION	TVD	POSITION	TVD
SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		4043.00		4053.00
V1	500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	3543.00	4043.00	3553.00	4053.00
V2	1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	3043.00	4043.00	3053.00	4053.00
V3	1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	2543.00	4043.00	2553.00	4053.00
V4	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	2043.00	4043.00	2053.00	4053.00
V5	2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	1543.00	4043.00	1553.00	4053.00
Ve	3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	1043.00	4043.00	1053.00	4053.00
KOP	3331.33	0.00	228.00	3331.33	0.00	0.00	0.00	0.00	711.67	4043.00	721.67	4053.00
C1	3431.33	8.40	228.00	3430.98	-4.90	-5.44	7.32	8.40	611.71	4042.68	621.71	4052.68
C2	3531.33	16.80	228.00	3528.48	-19.48	-21.63	29.11	8.40	513.25	4041.73	523.25	4051.73
C3	3631.33	25.20	228.00	3621.75	-43.44	-48.24	64.92	8.40	418.41	4040.17	428.41	4050.17
C4	3731.33	33.60	228.00	3708.80	-76.26	-84.69	113.96	8.40	329.23	4038.03	339.23	4048.03
C5	3831.33	42.00	228.00	3787.74	-117.23	-130.20	175.20	8.40	247.61	4035.35	257.61	4045.35
Ce	3931.33	50.40	228.00	3856.89	-165.48	-183.79	247.31	8.40	175.31	4032.21	185.31	4042.21
C7	4031.33	58.80	228.00	3914.77	-219.98	-244.31	328.75	8.40	113.88	4028.65	123.88	4038.65
CE	4131.33	67.20	228.00	3960.13	-279.54	-310.46	417.77	8.40	64.64	4024.77	74.64	4034.77
CS		75.60	228.00	3992.00	-342.90	-380.83	512.46	8.40	28.64	4020.64	38.64	4030.64
C10		84.00	228.00	4009.69	-408.70	-453.91	610.79	8.40	6.66	4016.35	16.66	4026.35
C11		85.00	228.00	4010.83	-416.63	-462.71	622.64	8.40	5.00	4015.83	15.00	4025.83
A-coal Top		91.00	228.00	4013.01	-472.34	-524.58	705.90	8.40	-0.81	4012.20	9.19	4022.20







Target Under Surface Location 4043.00 TARGET TOP TVD 228.00 DIP AZ 2.09 DIP DEG 4053.00

Survey Report-ML

OPERATOR:

WELL:

Anadarko Petroleum Corporation BlackHawk A-5H Sec20 T13S R10E

START: FINISH:

BASE TARGET TVD

DIP AZ

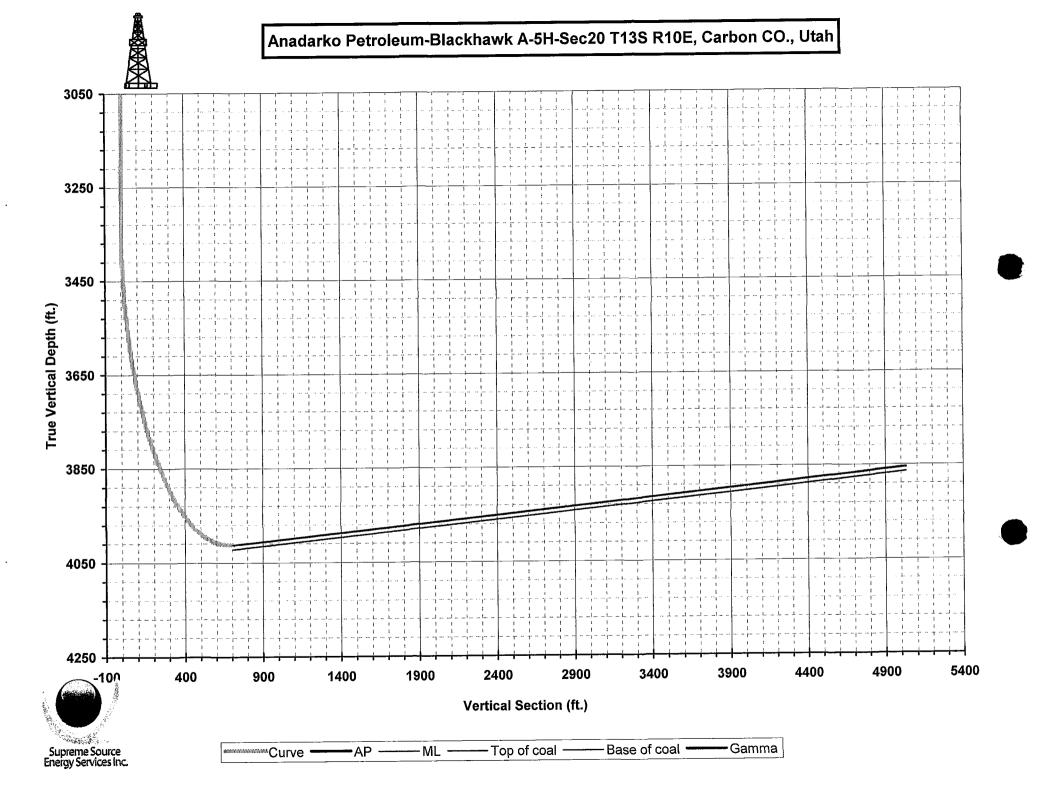
Carbon Cty, Utah LOCATION:

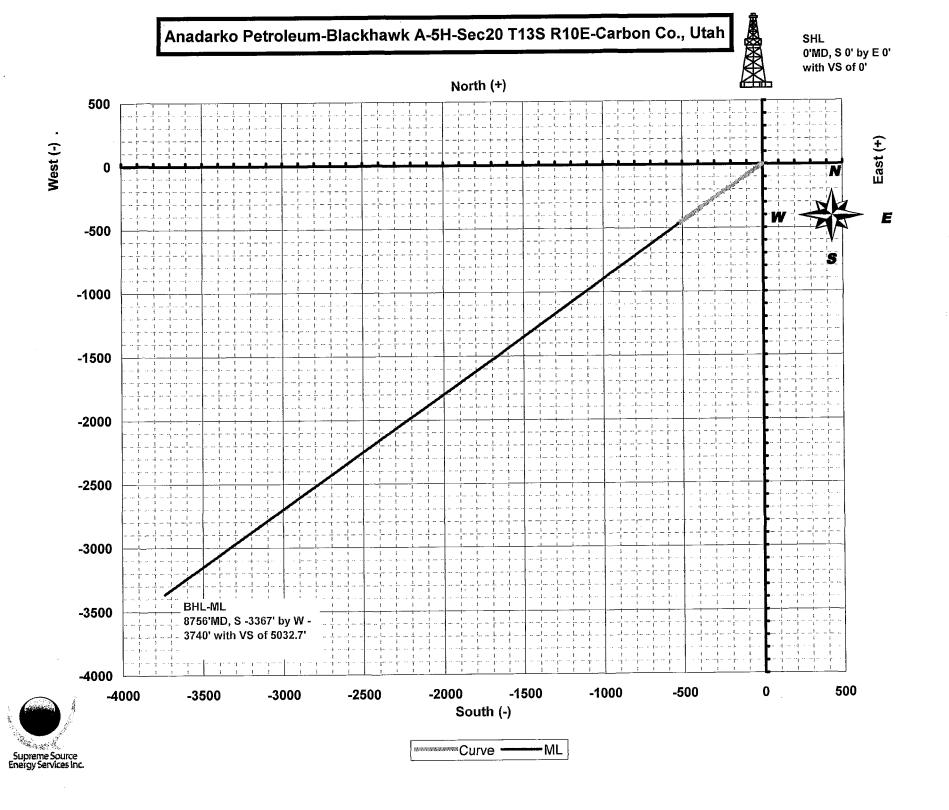
PROPOSED DIRECTION: 228.00

2.09 DIP DEG

228.00

				FILOFOSE	DIRECTION.							
MIN. CURVATURE O	CALCULATIONS	3					to the second second					100
SUR	MD	INCL.	AZM.	TVD	N-S	E-W	SECT.	DLS	TOP	TARGET	BASE	TARGET
NUM	ft	0	•	ft	ft	ft	ft	%100 ft	POSITION	TVD	POSITION	TVD
Tie in	4426.57	91.00	228.00	4013.01	-472.34	-524.58	705.90	8.40	-0.81	4012.20	9.19	4022.20
MLRat hole	4476.57	91.00	228.00	4012.14	-505.79	-561.74	755.89	0.00	-1.76	4010.37	8.24	4020.37
MLBuild	4500.00	92.00	228.00	4011.52	-521.46	-579.14	779.31	4.27	-2.01	4009.52	7.99	4019.52
ML-R2	4700.00	92.09	228.00	4004.39	-655.20	-727.67	979.18	0.05	-2.16	4002.22	7.84	4012.22
ML-L1	4800.00	92.09	228.00	4000.74	-722.07	-801.94	1079.12	0.00	-2.16	3998.58	7.84	4008.58
MLRot	5900.00	92.09	228.00	3960.62	-1457.62	-1618.86	2178.38	0.00	-2.16	3958.46	7.84	3968.46
ML-BHL	8756.22	92.09	228.00	3856.46	-3367.54	-3740.03	5032.71	0.00	-2.16	3854.30	7.84	3864.30
MIE-DUIE	0700.22	32.00		0000.10	0007.01		0002:::					L







Target Under Surface Location 4043.00 TARGET TOP TVD 208.00 DIP AZ 3.55 DIP DEG 4053.00

Survey Report-ML-L1

OPERATOR:

LOCATION:

Anadarko Petroleum Corporation

WELL:

BlackHawk A-5H Sec20 T13S R10E

START: FINISH:

BASE TARGET TVD

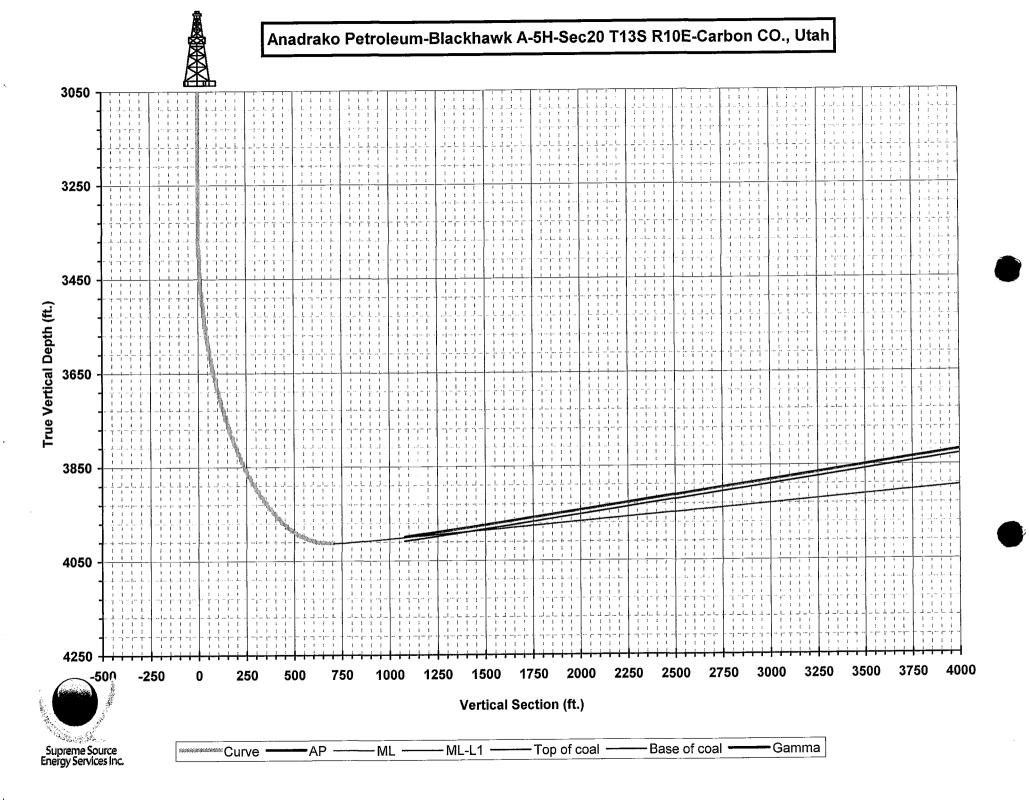
208.00 DIP AZ 3.55 DIP DEG

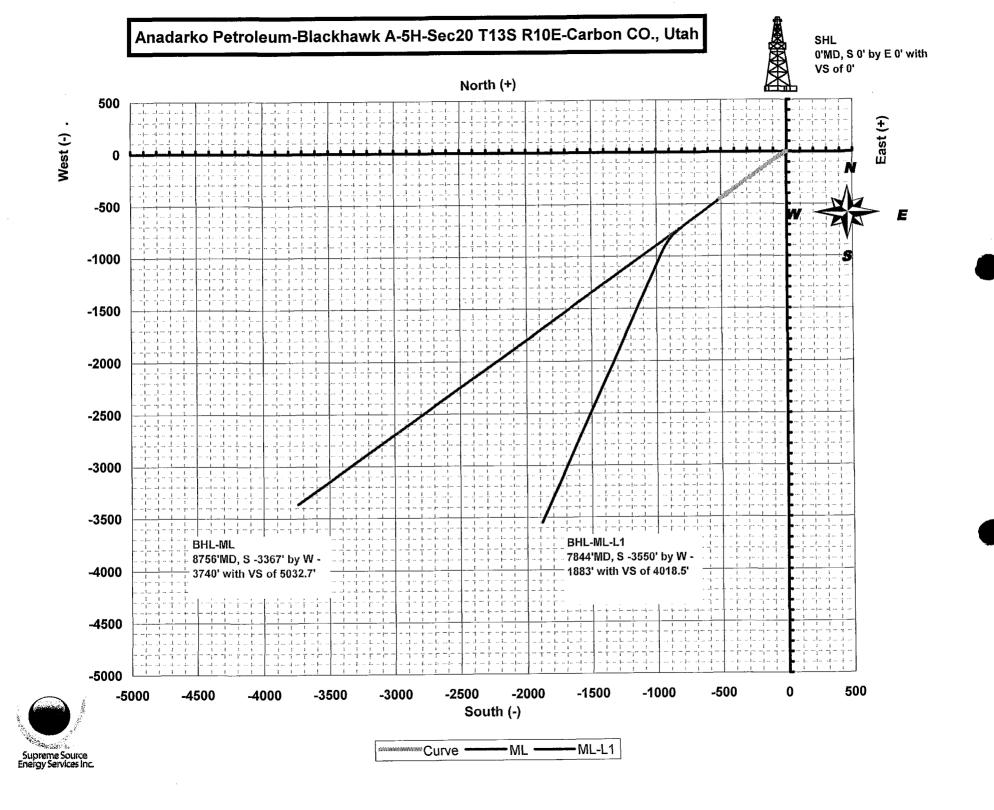
Carbon Cty, Utah

PROPOSED DIRECTION: 208.00

OP	TAF	RGE.	ſ		BASI	TARG	ET

MIN. CURVATURE									200			
SUR	MD	INCL.	AZM.	TVD	N-S	E-W	SECT.	DLS	TOP	TARGET	BASE	TARGET
NUM	ff	0	0	ft	ft	ft	ft	°/100 ft	POSITION	TVD	POSITION	TVD
Tie in	4800.00	92.09	228.00	4000.74	-722.07	-801.94	1079.12	0.00	-2.16	3998.58	7.84	4008.58
Turn	4900.00	90.22	217.00	3998.72	-795.67	-869.38	1110.68	11.16	-1.99	3996.73	8.01	4006.73
Turn	5000.00	96.48	206.00	3992.86	-880.60	-921.46	1210.12	12.64	-1.99	3990.87	8.01	4000.87
Turn	5100.00	90.29	199.70	3986.95	-972.50	-960.17	1309.44	8.83	-1.98	3984.97	8.02	3994.97
Rotate	5200.00	96.51	199.70	3981.03	-1066.44	-993.80	1408.17	6.22	-1.98	3979.05	8.02	3989.05
BHL-ML-L1	7844.13	90.52	199.70	3819.09	-3550.00	-1883.04	4018.50	0.23	-1.98	3817.11	8.02	3827.11







Target Under Surface Location 4043.00 TARGET TOP TVD 245.00 DIP AZ 0.48 DIP DEG

4053.00 BASE TARGET TVD 245.00

DIP AZ 0.48 DIP DEG

## Survey Report-ML-R2

OPERATOR:

LOCATION:

WELL:

Anadarko Petroleum Corporation BlackHawk A-5H Sec20 T13S R10E

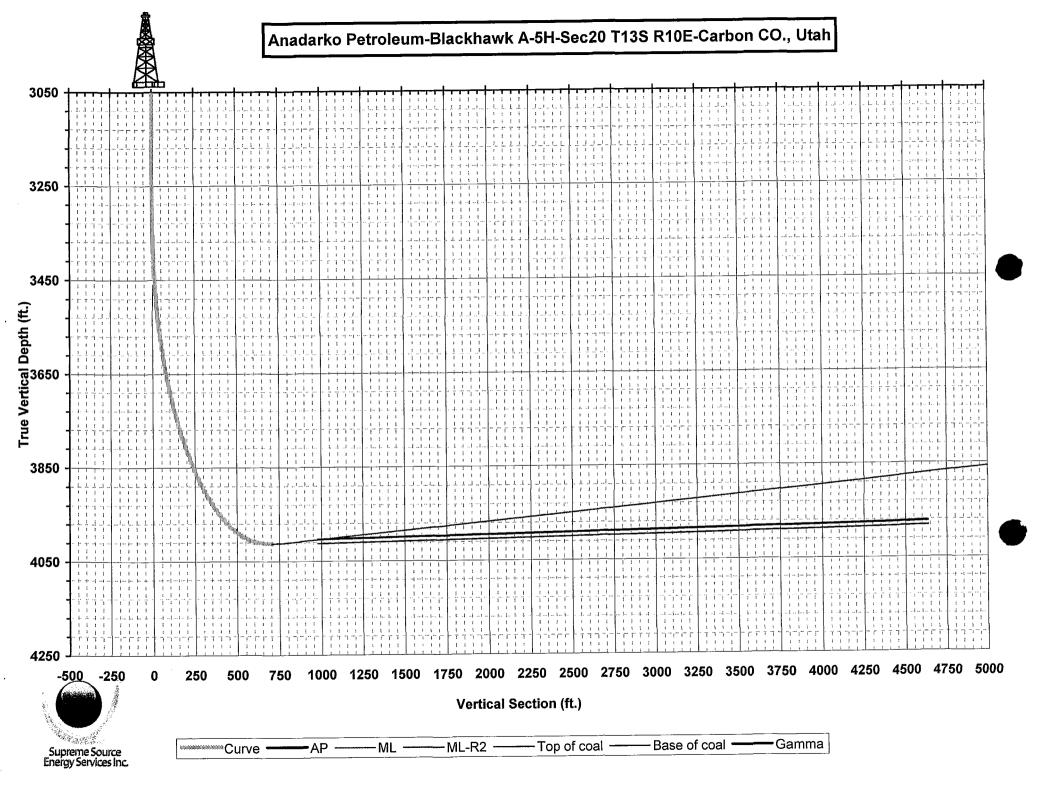
Carbon Cty, Utah

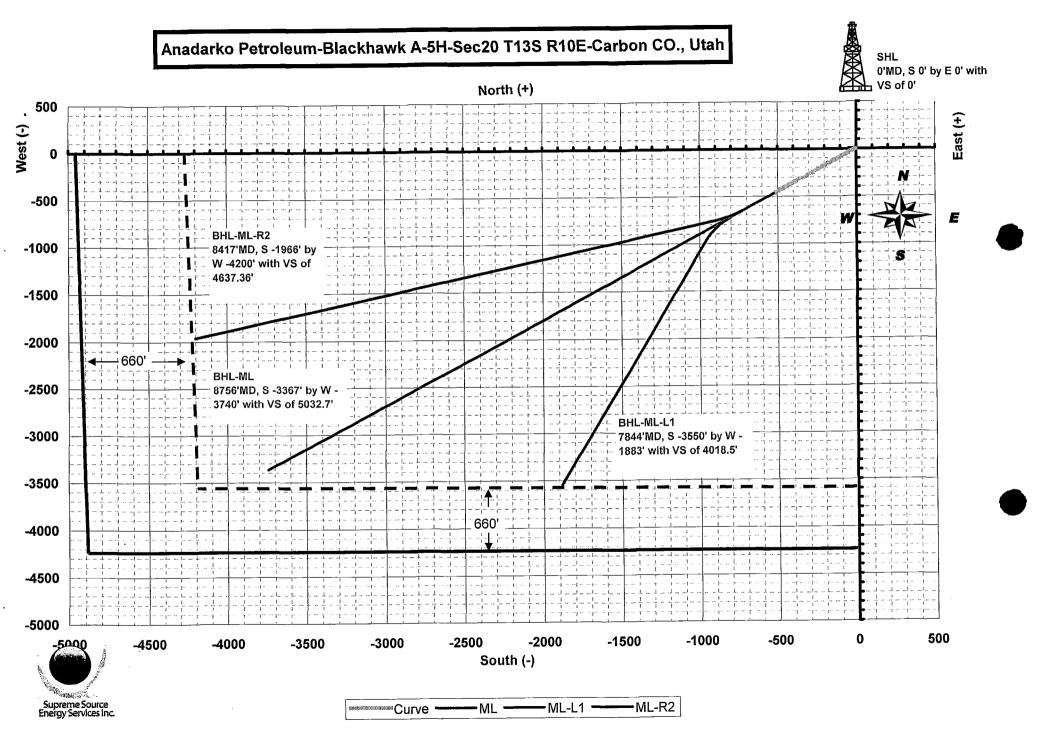
PROPOSED DIRECTION: 245.00

START:

FINISH:

MIN, CURVATURE	CALCULATIONS	8	5. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1									
SUR	MD	INCL.	AZM.	TVD	N-S	E-W	SECT.	DLS	TOP	TARGET	BASE	TARGET
NUM	ft	0	0	ft	ft	ft	ft	%100 ft	POSITION	TVD	POSITION	TVD
Tie in	4700.0	92.09	228.00	4004.39	-655.20	-727.67	979.18	0.05	-2.16	4002.22	7.84	4012.22
Turn	4800.0	88.43	239.00	4003.93	-714.58	-807.92	1034.22	11.59	-2.15	4001.78	7.85	4011.78
Turn	4900.0	92.49	249.90	4003.12	-757.64	-897.99	1134.04	11.63	-2.15	4000.98	7.85	4010.98
Rotate	5000.0	88.44	249.90	4002.31	-792.00	-991.87	1233.65	4.05	-2.15	4000.16	7.85	4010.16
BHI -MI -R2	8417.0	92.51	249.90	3973.81	-1966.00	-4200.00	4637.36	0.12	-2.15	3971.66	7.85	3981.66

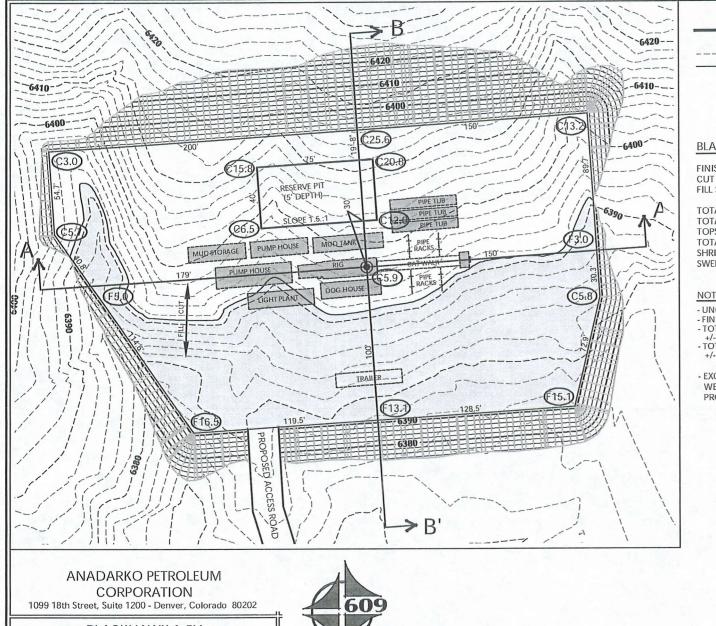




## Anadarko Petroleum Corporation BLACKHAWK A-5H SECTION 20, T.13 S., R. 10 E., S.L.M.

PROCEED IN A NORTHERLY DIRECTION FROM PRICE, UTAH ALONG U.S. HIGHWAY 6 APPROXIMATELY 4.1 MILES TO THE JUNCTION OF STATE HIGHWAY 139; EXIT RIGHT AND PROCEED IN AN EASTERLY DIRECTION, GRADUALLY CHANGING DIRECTIONS TO NORTHERLY APPROXIMATELY 1.4 MILES TO THE JUNCTION OF STATE HIGHWAY 157; EXIT RIGHT AND PROCEED IN AN EASTERLY DIRECTION GRADUALLY CHANGING TO A NORTHEASTERLY DIRECTION APPROXIMATELY 2.2 MILES TO THE JUNCTION OF AN EXISTING WELL ACCESS ROAD; EXIT LEFT AND PROCEED IN A NORTHERLY THEN NORTHEASTERLY DIRECTION FOR APPROXIMATELY 0.4 MILES TO THE JUNCTION OF AN EXISTING WELL ACCESS ROAD LEADING TO THE EXISTING BLACKHAWK A-3 WELL; TURN LEFT AND PROCEED IN A NORTHWESTERLY DIRECTION FOR APPROXIMATELY 0.3 MILES TO THE ENTRANCE TO THE EXISTING BLACKHAWK A-3 WELL PAD; FOLLOW PROPOSED ACCESS ROAD NORTH, FROM THE JUNCTION TO THE EXISTING BLACKHAWK A-3 WELL PAD, APPROXIMATELY 0.2 MILES TO THE PROPOSED BLACKHAWK A-5H WELL LOCATION.

TOTAL DISTANCE FROM PRICE, UTAH TO THE PROPOSED BLACKHAWK A-5H WELL LOCATION IS APPROXIMATELY 8.6 MILES.



#### WELL PAD LEGEND

WELL LOCATION **EXISTING CONTOURS (2' INTERVAL)** PROPOSED CONTOURS (2' INTERVAL)

#### BLACKHAWK A-5H WELL PAD QUANTITIES

FINISHED GRADE ELEVATION = 6,391.0' CUT SLOPES = 1.5:1 FILL SLOPES = 1.5:1

TOTAL CUT FOR WELL PAD = 17,029 C.Y. TOTAL FILL FOR WELL PAD = 11,595 C.Y. TOPSOIL @ 6" DEPTH = 1,612 C.Y. TOTAL DISTURBANCE = 2.00 ACRES SHRINKAGE FACTOR = 1.15 SWELL FACTOR = 1.00

#### NOTES:

- UNGRADED GROUND ELEV. @ LOC. STAKE = 6,396.9'
- FINISH GRADE ELEV. @ LOC. STAKE = 6,391.0'
- TOTAL PIT CAPACITY WITH 2' OF FREEBOARD +/- 2,004 BARRELS
- TOTAL PIT VOLUME +/- 417 CY
- EXCESS CUT MATERIAL FROM CONSTRUCTION OF WELL PAD WILL BE UTILIZED TO CONSTRUCT THE PROPOSED WELL ACCESS ROAD.

**BLACKHAWK A-5H** WELL PAD - LOCATION LAYOUT 1142' FNL, 263' FEL NE1/4NE1/4 SECTION 20, T.13S., R.10E. S.L.M., CARBON COUNTY, UTAH



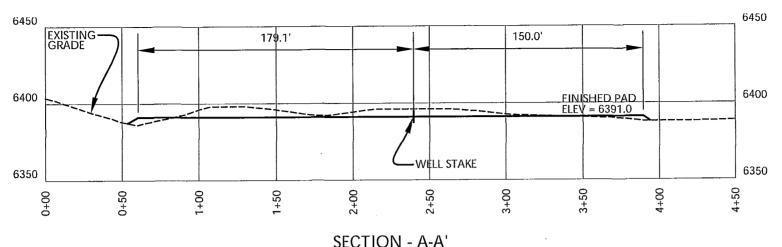
CONSULTING, LLC 371 Coffeen Avenue Sheridan WY 82801

Phone 307-674-0609 Fax 307-674-0182

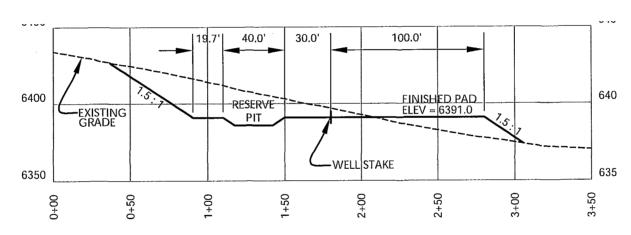
Scale:	1"=60'	Date:	04/08/08	SHEET NO:	
			BY	3	
REVISED:			DATE	0	3 OF 8



2' CONTOURS



SECTION - A-A'



### SECTION - B-B'

#### ANADARKO PETROLEUM **CORPORATION**

1099 18th Street, Suite 1200 - Denver, Colorado 80202

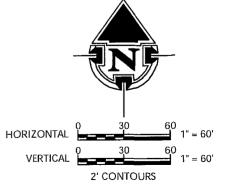
**BLACKHAWK A-5H WELL PAD - CROSS SECTIONS** 

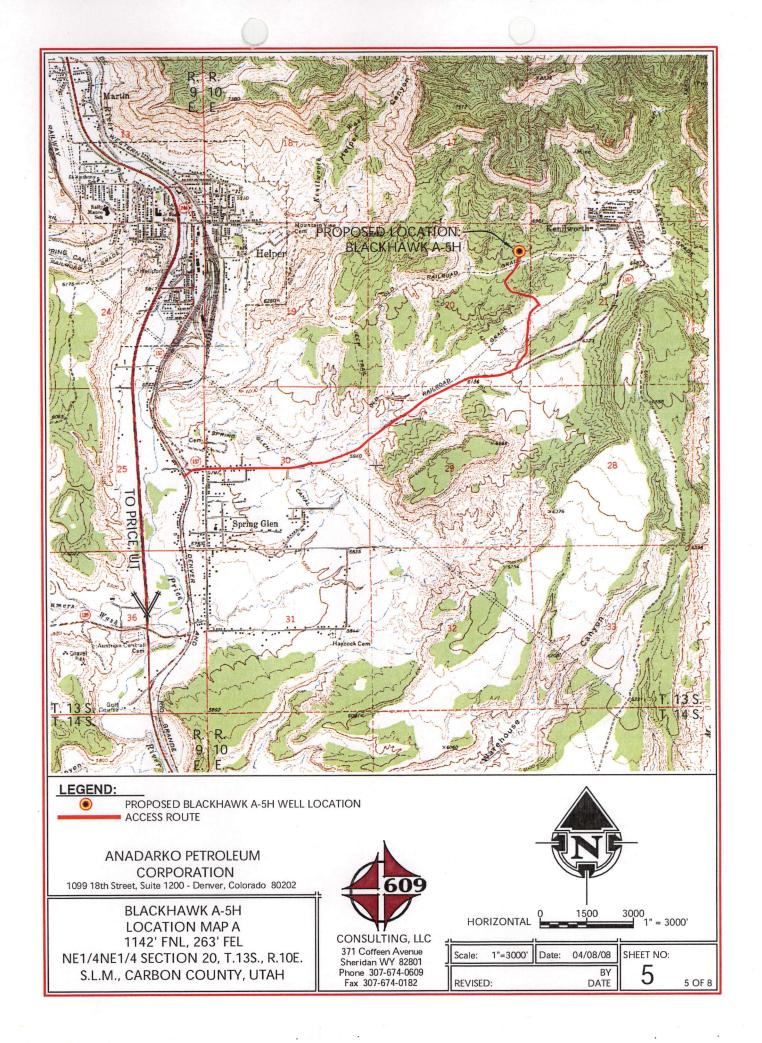
NE1/4NE1/4 SECTION 20, T.13S., R.10E. S.L.M., CARBON COUNTY, UTAH

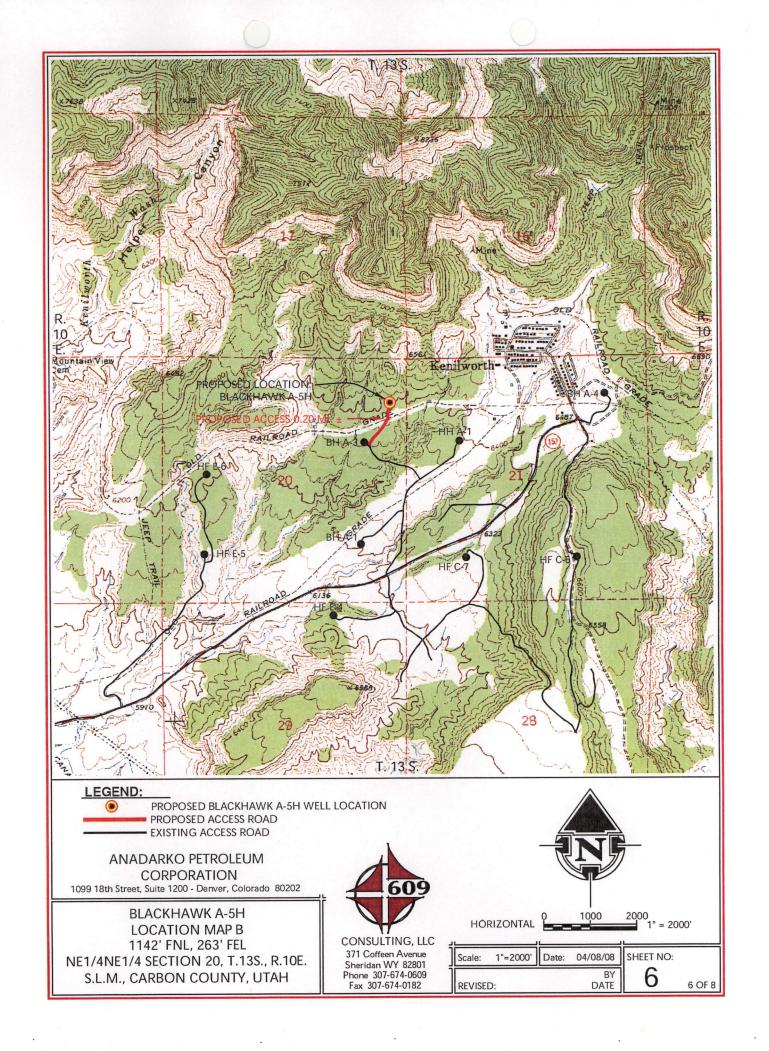


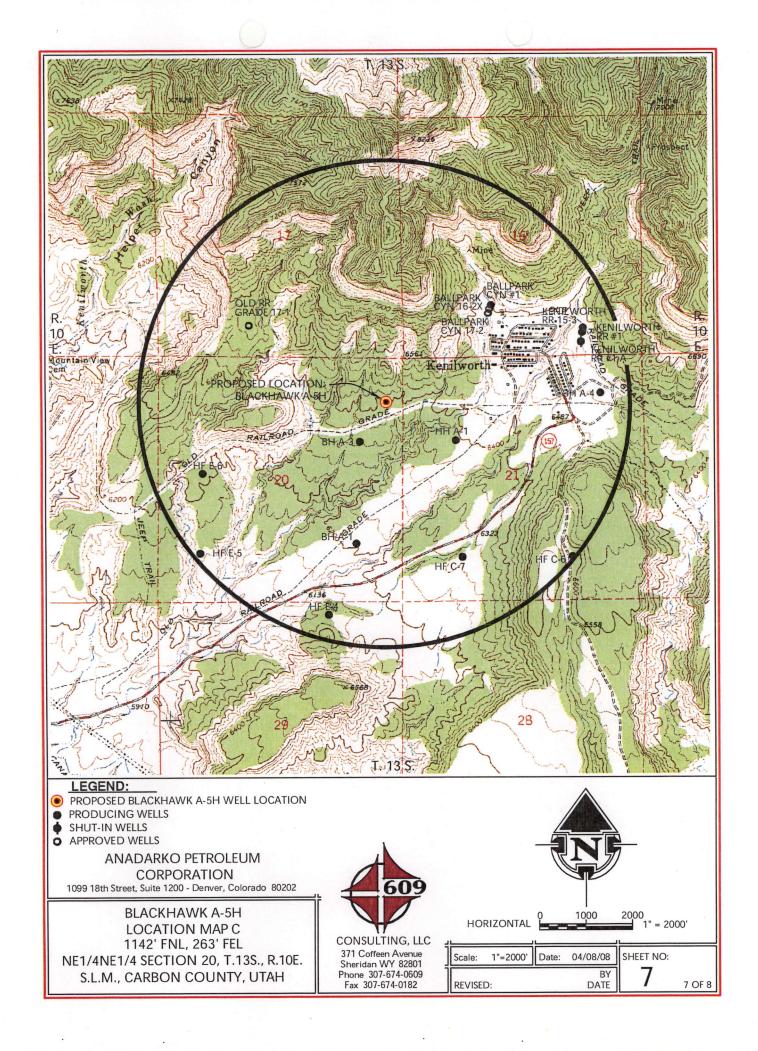
CONSULTING, LLC 371 Coffeen Avenue Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

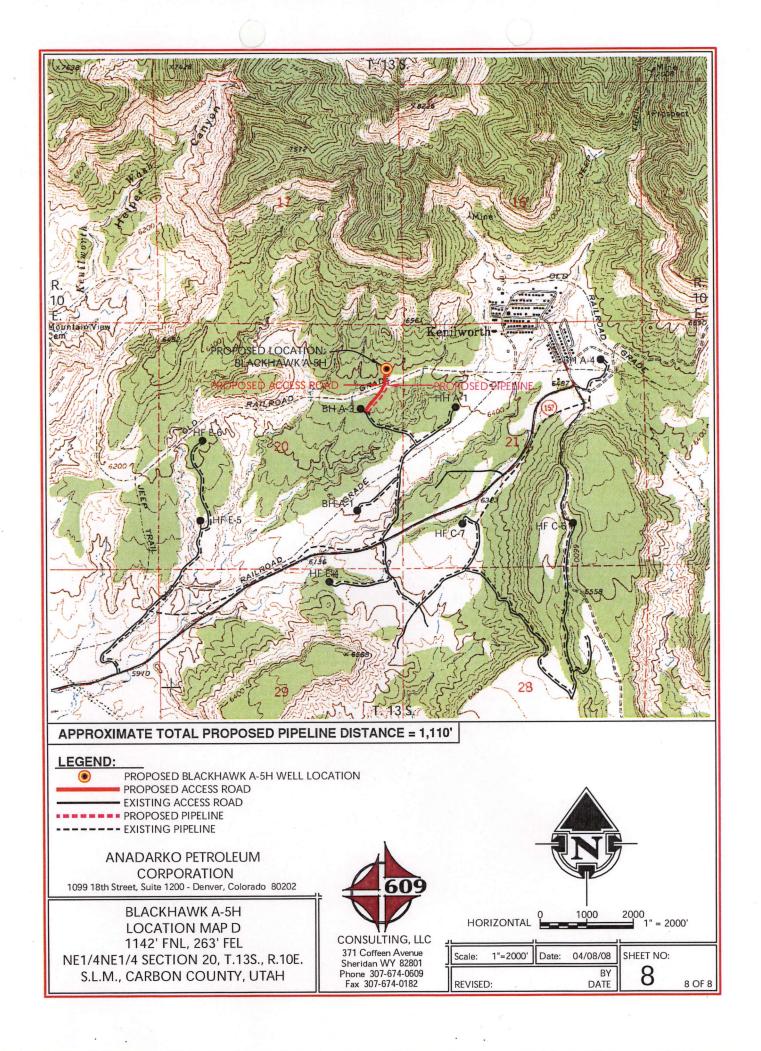
j	Scale:	1"=60'	Date:	04/08/08	SHEET NO:		Ī
	REVISED:			BY DATE	4	4 OF 8	L

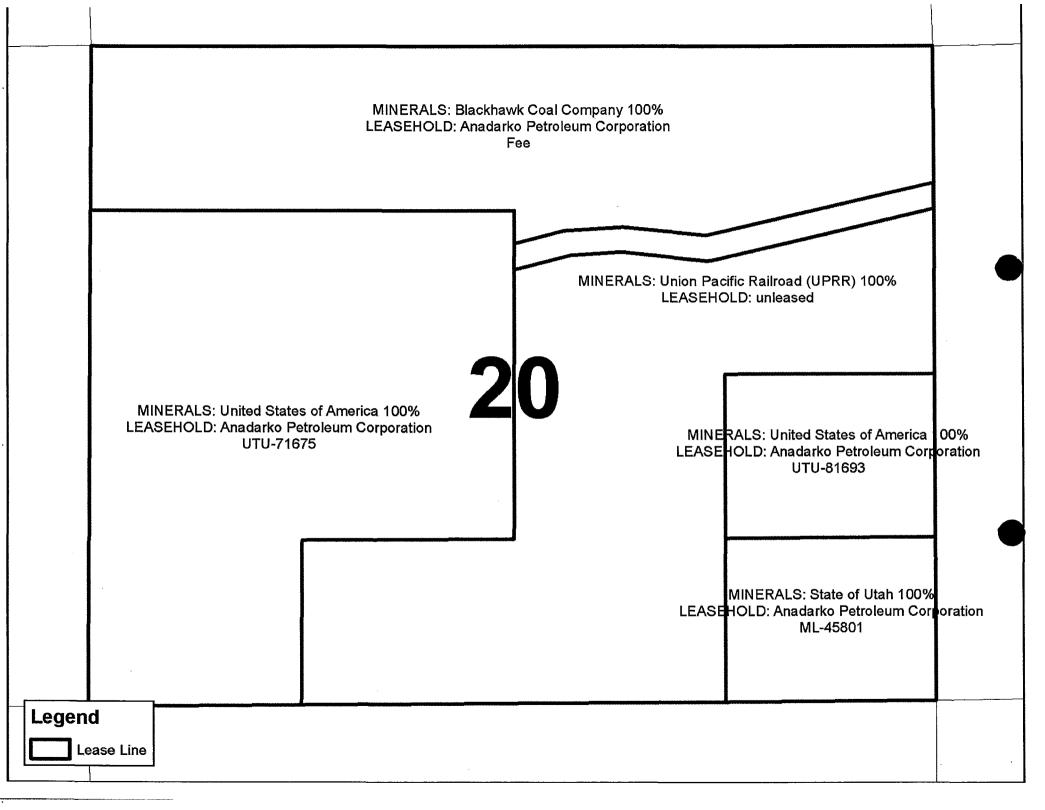


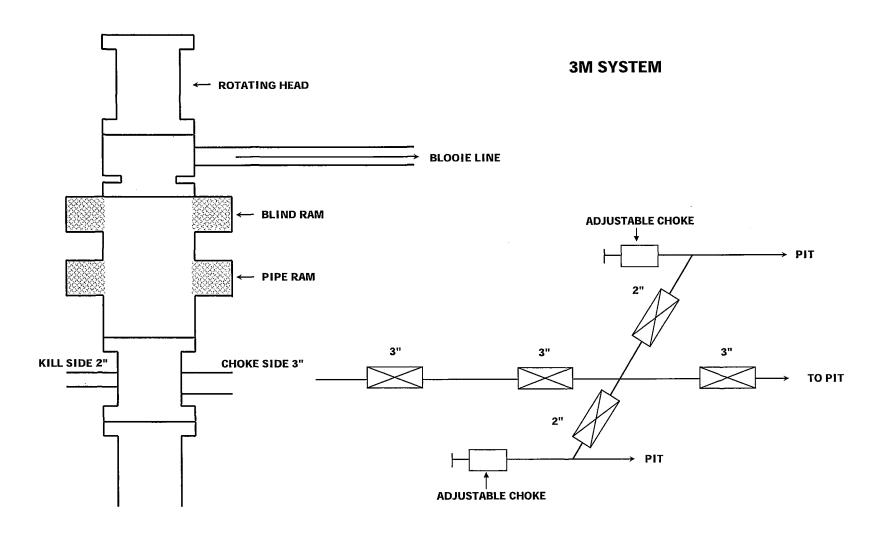




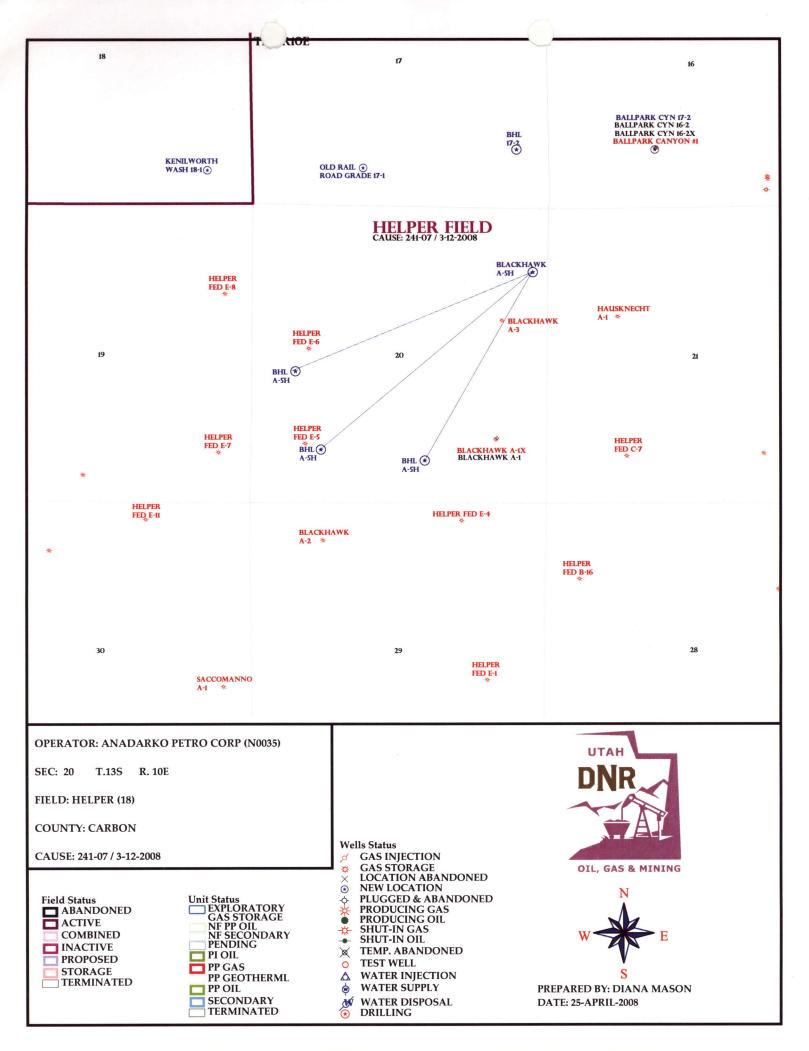








APD RECEIVED: 04/17/2008	API NO. ASSIGNED: 43-007-31402
WELL NAME: BLACKHAWK A-5H  OPERATOR: ANADARKO Petro Corp. ( Neo 35 )  CONTACT: DEBBY BLACK	PHONE NUMBER: 720-929-6000
PROPOSED LOCATION:	INSPECT LOCATN BY: / /
NENE 20 130S 100E	Tech Review Initials Date
ປ SURFACE: 1142 FNL 0263 FEL BOTTOM: 0923 FSL 1216 FWL	Engineering DKO 6/30/06
COUNTY: CARBON	Geology
LATITUDE: 39.68499 LONGITUDE: -110.8163 UTM SURF EASTINGS: 515751 NORTHINGS: 43926	O2 Surface
LEASE TYPE: 4 - Fee  LEASE NUMBER: FEE  SURFACE OWNER: 4 - Fee	PROPOSED FORMATION: FRSD COALBED METHANE WELL? YES
Plat  Bond: Fed[] Ind[] Sta[] Fee[]  (No. 2447222 )  Potash (Y/N)  N Oil Shale 190-5 (B) or 190-3 or 190-13  Water Permit  (No. AIR DRILLE)  N RDCC Review (Y/N)  (Date: )  Fee Surf Agreement (Y/N)  Intent to Commingle (Y/N)	LOCATION AND SITING: R649-2-3.  Unit:
STIPULATIONS: 1- STATE	MEROT OF BASIS



# **Application for Permit to Drill**

**Statement of Basis** 

5/22/2008

#### Utah Division of Oil, Gas and Mining

Page 1

APD No API WellNo **Surf Ownr CBM** Status Well Type 755 43-007-31402-00-00 P GW No

Unit

ANADARKO PETROLEUM CORP **Operator Surface Owner-APD** 

Well Name BLACKHAWK A-5H

Field **HELPER** Type of Work

Location NENE 20 13S 10E S 1142 FNL 263 FEL GPS Coord (UTM) 515751E 4392602N

#### Geologic Statement of Basis

Significant volumes of high quality ground water are unlikely to be encountered at this location. A moderately permeable soil is likely to be developed on the Quaternary / Tertiary Pediment Mantle covering the Upper Part of the Blue Gate Member of the Mancos Shale, but it does not appear to be charged with any significant volume of groundwater. The proposed casing and cementing program should adequately isolate any zones of fresh water that may be penetrated. No water rights have been filed within a mile of the location.

Chris Kierst 5/20/2008 **APD Evaluator** Date / Time

#### **Surface Statement of Basis**

The Division recommends that the location be built as designed in submitted APD and as staked during the presite inspection conducted on May 8, 2008. It was discussed during this pre-site inspection to change the access to the west side of the location, utilizing the natural terrain to reach the location. Drainages and runoff should be diverted around and away from the well-pad and access road, utilizing culverts, ditches, and berms where appropriate. The Division will require a 12 mil. (minimum) synthetic liner in the reserve pit.

Mark Jones 5/8/2008 **Onsite Evaluator** Date / Time

#### Conditions of Approval / Application for Permit to Drill

Category Condition

**Pits** A synthetic liner with a minimum thickness of 12 mils shall be properly installed and

maintained in the reserve pit.

Surface The well site shall be bermed to prevent fluids from leaving the pad.

Surface Drainages adjacent to the proposed pad shall be diverted around the location.

#### Utah Division of Oil, Gas and Mining

**Operator** 

ANADARKO PETROLEUM CORP

**Well Name** 

BLACKHAWK A-5H

**API Number** 

43-007-31402-0

APD No. 755

Field/Unit HELPER

Location: 1/4,1/4 NENE

**Sec** 20 Tw 13S Rng 10E

1142 FNL 263 FEL

**GPS Coord (UTM)** 515735

4392660

**Surface Owner** 

#### **Participants**

M Jones (UDOGM), Tonya Hammond (surface), Nathan Sill and others (BLM), Jim Hartley and Debby Black (Anadarko).

#### Regional/Local Setting & Topography

East of Spring Glen, west of Kenilworth, Carbon County, Utah. Approximately 8 miles north of Price.

Gradual to steep graded terrain, sloping to the west, cut by ephemeral wash drainages.

#### Surface Use Plan

#### **Current Surface Use**

Wildlfe Habitat

Recreational

#### **New Road**

Miles

Well Pad

**Src Const Material** 

**Surface Formation** 

0.2

Width 180

Length 329

Onsite

Ancillary Facilities N

#### Waste Management Plan Adequate?

#### **Environmental Parameters**

#### Affected Floodplains and/or Wetland Y

Ephemeral drainage to east and south of proposed well-pad.

#### Flora / Fauna

mature PJ community.

#### Soil Type and Characteristics

Rocky, sandy clay.

#### **Erosion Issues** Y

erosive upon disturbance.

#### Sedimentation Issues N

no live waters in close proximity to location.

Site Stability Issues N

#### Drainage Diverson Required Y

Divert all drainages arouund location.

#### Berm Required? Y

#### Erosion Sedimentation Control Required? N

Paleo Survey Run? Y Paleo Potental Observed? N Cultural Survey Run? Y Cultural Resources? N

#### Reserve Pit

Site-Specific Factors		Site 1	Ranking		
Distance to Groundwater (feet)	>200		0		
Distance to Surface Water (feet)	>1000		0		
Dist. Nearest Municipal Well (ft)	>5280		0		
Distance to Other Wells (feet)	>1320		0		
Native Soil Type	High permeability		20		
Fluid Type	Fresh Water		5		
<b>Drill Cuttings</b>	Normal Rock		0		
<b>Annual Precipitation (inches)</b>	10 to 20		5		
Affected Populations	30 to 50		8		
Presence Nearby Utility Conduits	Not Present		0		
		Final Score	38	1	Sensitivity Level

#### Characteristics / Requirements

Dugout earthen pit (40x75x5). Lined with 12 mil minimum synthetic liner.

Closed Loop Mud Required? N Liner Required? Y Liner Thickness 12 Pit Underlayment Required? N

#### **Other Observations / Comments**

BLM had multiple comments regarding the siting of this well location. It was recommended by DOGM to leave the location as staked. The landowner agreed with this as well as Anadarko. Other issues including; re-vegetation, access, drainage issues, visual impact, lining the reserve pit, and crossing a proposed OHV trail, were discussed. Carbon County noted that the site was already zoned mining and grazing.

Mark Jones 5/8/2008
Evaluator Date / Time

Online Services

**Agency List** 

## Utah Division of Water Rights

Search



There are no features in the query area.

Click on the back button to try again

Please direct questions and comments regarding the map server to: <u>leeeschler@utah.gov</u>.

back

close

Utah Division of Water Rights | 1594 West North Temple Suite 220, P.O. Box 146300, Salt Lake City, Utah 84114-6300 | Natural Resources | Contact | Disclaimer | Privacy Policy | Accessibility Policy

1142FNL 263 FEL ML/228-3367.54 -3740.03 4509.54 FNL -4003.03 FEL ~ 892' FSL (923) 1165, 51 FEL (1216 FWL) ML-1/208 - 3550,2 -1883.04 46920 FNL 2146-04 FEL ~ 714.36 (711) 2121'FEL(2087)-ML-2/245 -1966.0 -4200.0 FEL 3108 4463 FEL ~2304'(2328') 697.54 FEL (745) 1-V.

### **BOPE REVIEW**

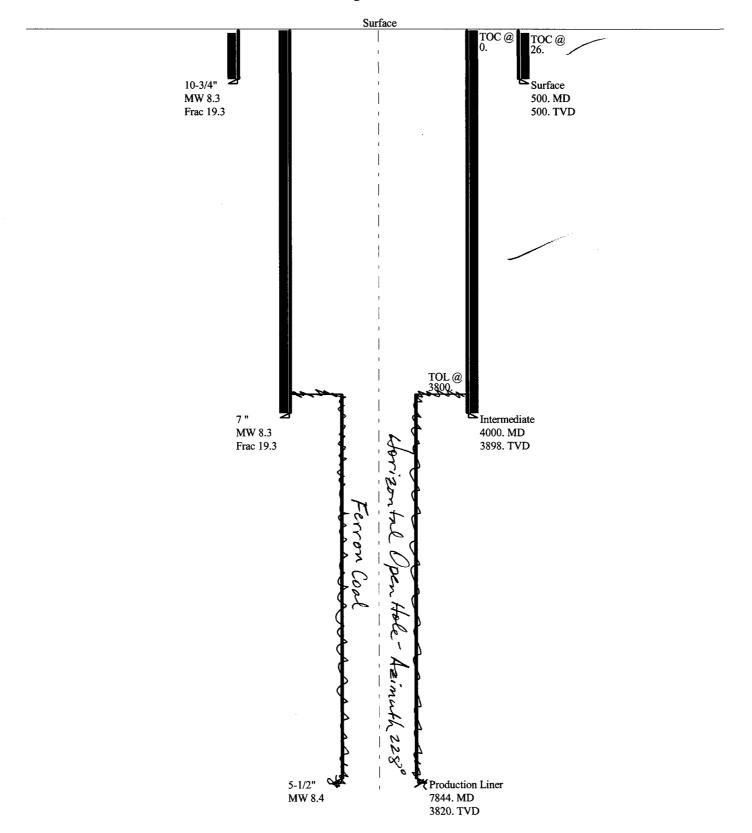
Anadarko A-5H:208, 228, 245 API 43-007-31402

INPUT			
Well Name	Anadarko A-5H:208, 228,	245 API 43-007-31402	
	String 1 Strin	g 2	
Casing Size (")	10 3/4	7	
Setting Depth (TVD)	500	4000	
Previous Shoe Setting Depth (TVD)	0	500	
Max Mud Weight (ppg)	8.33	8.4	
BOPE Proposed (psi)	<i>⊘</i> <del>1000 </del>	2000	
Casing Internal Yield (psi)	1820	3740	
Operators Max Anticipated Pressure (psi)	2600	12.5 ppg	

Calculations	String 1	10 3/4 "	
Max BHP [psi]	.052*Setting Depth*MW =	217	
	-	BOPE Adequate For Drilling And Setting Casing	at Depth?
MASP (Gas) [psi]	Max BHP-(0.12*Setting Depth) =	157 NO YES OK reasonable dept	ırface shoe
MASP (Gas/Mud) [psi]	Max BHP-(0.22*Setting Depth) =	107 NO YES	(
		*Can Full Expected Pressure Be Held At Previous	s Shoe?
Pressure At Previous Shoe	Max BHP22*(Setting Depth - Previous Shoe Depth) =	107 - NO la expected pressures	
Required Casing/BOPE Test	Pressure	500 <u>psi</u>	
*Max Pressure Allowed @ Pi	revious Casing Shoe =	0 psi *Assumes 1psi/ft frac gradient	

Calculations	String 2	7	*	
Max BHP [psi]	.052*Setting Depth*MW =	1747		
			BOPE Adequate	For Drilling And Setting Casing at Depth?
MASP (Gas) [psi]	Max BHP-(0.12*Setting Depth) =	1267	YES 🗸	Air drill to "core point", then switch to water
MASP (Gas/Mud) [psi]	Max BHP-(0.22*Setting Depth) =	867	YES	Horizontal open hole completion to 8756' MD
			*Can Full Expect	ed Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(Setting Depth - Previous Shoe Depth) =	977	<- NO - ₹	Keasona 91P
Required Casing/BOPE Test	Pressure	2000	psi /	
Max Pressure Allowed @ P	revious Casing Shoe =	500	psi	*Assumes 1psi/ft frac gradient

Casing Schematic



Well name:

2008-06 Anadarko Blackhawk A-5H:208

Operator:

**Anadarko Petroleum Corporation** 

String type:

Surface

Project ID:

43-007-31402

Location:

**Carbon County** 

**Environment:** Minimum design factors:

Collapse

Mud weight: Design is based on evacuated pipe.

**Design parameters:** 

8.330 ppg

Collapse: Design factor

1.125

H2S considered? Surface temperature:

No 75 °F

Bottom hole temperature: Temperature gradient:

82 °F 1.40 °F/100ft

Minimum section length:

Non-directional string.

500 ft

**Burst:** 

Design factor

1.00

Cement top:

26 ft

**Burst** 

Max anticipated surface

No backup mud specified.

pressure: Internal gradient: 440 psi

Calculated BHP

0.120 psi/ft 500 psi

Tension:

8 Round STC: 8 Round LTC:

**Buttress:** 

Premium: Body yield: 1.80 (J) 1.60 (J) 1.50 (J)

439 ft

1.80 (J)

1.50 (B)

Tension is based on buoyed weight.

Neutral point:

Re subsequent strings:

Next setting depth: Next mud weight:

Next setting BHP:

Fracture mud wt: Fracture depth: Injection pressure: 19.250 ppg 500 ft 500 psi

3.898 ft

8,400 ppg 1,701 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	500	10.75	32.75	H-40	ST&C	500	500	10.067	283.2
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	216	840	3.883	500	1820	3.64	14 -	205	14.25 J

Prepared

Helen Sadik-Macdonald Div of Oil, Gas & Minerals

Phone: (801) 538-5357 FAX: (801) 359-3940

Date: June 23,2008 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 500 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:

2008-06 Anadarko Blackhawk A-5H:208

Operator:

**Anadarko Petroleum Corporation** 

String type:

Location:

Intermediate

Project ID:

43-007-31402

Design parameters:

Carbon County

Minimum design factors: **Environment:** 

Collapse

Mud weight: 8.330 ppg

Collapse: Design factor

1.125

H2S considered? Surface temperature: No 75 °F

Design is based on evacuated pipe.

Bottom hole temperature: Temperature gradient:

130 °F 1.40 °F/100ft

Minimum section length: 1,500 ft

**Burst:** 

Design factor

1.00

1.80 (J)

1.60 (J)

1.50 (J)

1.50 (B)

3.413 ft

Cement top:

Surface

**Burst** 

Max anticipated surface

No backup mud specified.

pressure: Internal gradient: Calculated BHP

829 psi 0.220 psi/ft 1,687 psi

Tension:

8 Round STC: 8 Round LTC: **Buttress:** 

Neutral point:

Premium: Body yield:

Directional well information: 1.80 (J)

4800 ft Kick-off point Departure at shoe: 302 ft Maximum dogleg:

8.4 °/100ft 56.17° Inclination at shoe:

Re subsequent strings:

Next setting depth: Next mud weight: Next setting BHP:

3,820 ft 8.400 ppg 1,667 psi 19.250 ppg

Fracture mud wt: Fracture depth: Injection pressure:

3.898 ft 3,898 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade J-55	End Finish ST&C	True Vert Depth (ft) 3898	Measured Depth (ft) 4000	Drift Diameter (in) 6.331	Internal Capacity (ft³) 909.3
Run Seq	4000 Collapse Load	Collapse Strength	20.00  Collapse Design	Burst Load	Burst Strength	Burst Design	Tension Load	Tension Strength	Tension Design
1	<b>(psi)</b> 1687	( <b>psi)</b> 2074	<b>Factor</b> 1.230	( <b>psi)</b> 1687	<b>(psi)</b> 3740	Factor 2.22	<b>(Kips)</b> 68	( <b>Kips)</b> 234	<b>Factor</b> 3.43 J

Tension is based on buoved weight.

Prepared

Helen Sadik-Macdonald Div of Oil.Gas & Minerals Phone: (801) 538-5357 FAX: (801) 359-3940

Date: June 23,2008 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 3898 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Well name:

2008-06 Anadarko Blackhawk A-5H:228

Operator:

**Anadarko Petroleum Corporation** 

String type:

Production

Project ID:

Location:

Carbon County

43-007-31402

**Design parameters:** 

Collapse

Mud weight:

8.330 ppg Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor

**Environment:** 

H2S considered? Surface temperature: No 75 °F

Bottom hole temperature: 131 °F Temperature gradient: 1.40 °F/100ft

Minimum section length: 1,500 ft

Drift

Diameter

**Burst:** 

Design factor

1.00 Cement top:

1.125

Surface

**Burst** 

Run

Seq

Max anticipated surface

pressure: Internal gradient:

Segment

Length

854 psi 0.220 psi/ft

**Nominal** 

Weight

Calculated BHP

1,737 psi

No backup mud specified.

Size

Tension:

8 Round STC: 8 Round LTC: **Buttress:** 

Premium: Body yield:

Directional well information:

Measured

Depth

Kick-off point Departure at shoe: Maximum dogleg:

3331 ft 705 ft 8.4 °/100ft 90.93 °

Inclination at shoe:

Internal

Capacity

Tension is based on buoyed weight. Neutral point: 3.509 ft

End

**Finish** 

Grade

True Vert

Depth

1.80 (J)

1.80 (J)

1.60 (J)

1.50 (J)

1.50 (B)

	(ft)	(in)	(ibs/ft)			(ft)	(ft)	(in)	(ft³)
1	4426	5.5	17.00	J-55	LT&C	4014	4426	4.767	577.7
Run Seq	Collapse Load	Collapse Strength	Collapse Design	Burst Load	Burst Strength	Burst Design	Tension Load	Tension Strength	Tension Design
	(psi)	(psi)	Factor	(psi)	(psi)	Factor	(Kips)	(Kips)	Factor
1	1737	4654	2.680	1737	5320	3.06	60	247	4.14 J

Prepared

Helen Sadik-Macdonald Div of Oil, Gas & Minerals Phone: (801) 538-5357 FAX: (801) 359-3940

Date: June 16,2008 Salt Lake City, Utah

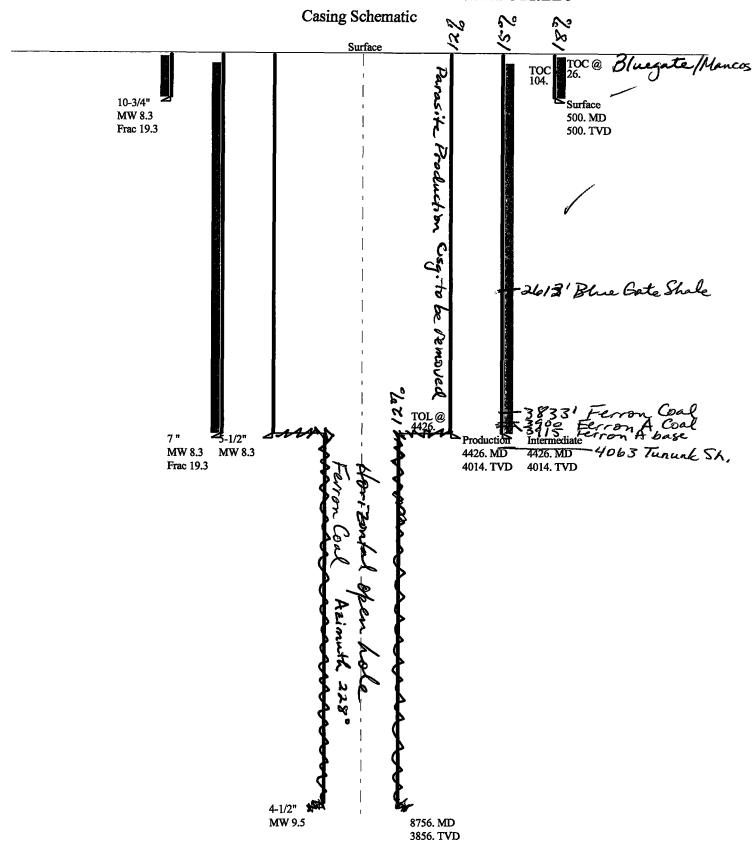
Remarks:

Collapse is based on a vertical depth of 4014 ft, a mud weight of 8.33 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

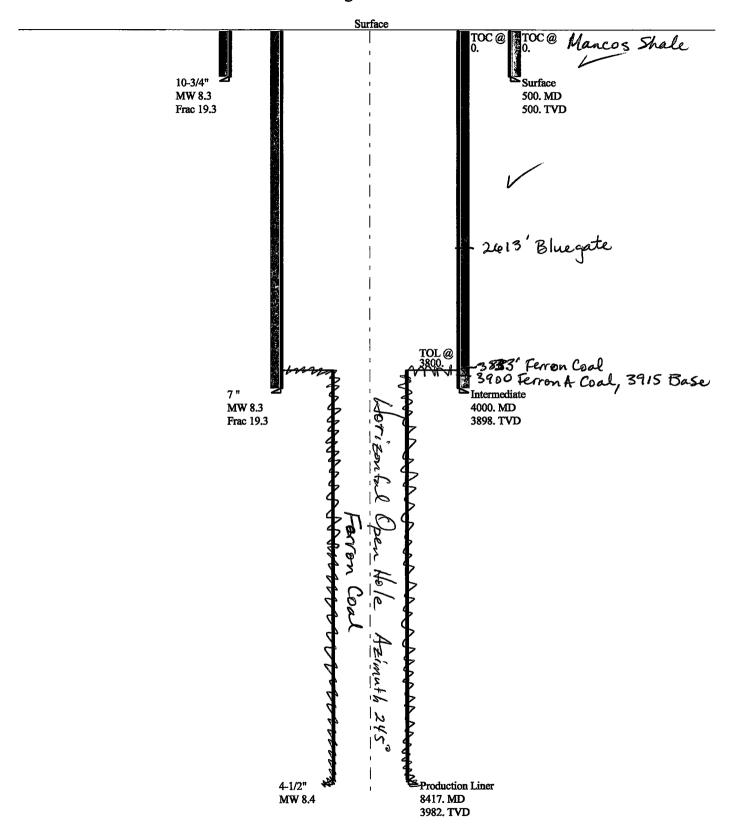
Burst strength is not adjusted for tension.

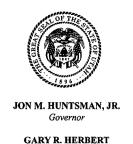
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

## 2008-06 Anadarko Blackhawk A-5H:228



**Casing Schematic** 





Lieutenant Governor



MICHAEL R. STYLER Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

July 1, 2008

Anadarko Petroleum Corporation 1099 18th St., Ste. 1200 Denver, CO 80202

Re: Blackhawk A-5H Well, 1142' FNL, 263' FEL, NE NE, Sec. 20, T. 13 South, R. 10 East, Bottom Location 1 – 923' FSL, 1216' FWL, SW SW, Sec. 20, T. 13 South, R. 10 East, Bottom Location 2 – 711' FSL, 2087' FEL, SW SE, Sec. 20, T. 13 South, R. 10 East, Bottom Location 3 – 2328' FSL, 745' FWL, NW SW, Sec. 20, T. 13 South, R. 10 East, Carbon County, Utah

#### Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-007-31402.

Sincerely,

Gil Hunt

Associate Director

pab Enclosures

cc: Carbon County Assessor



Operator:	Anadarko Petroleum Corporation						
Well Name & Numb	er	Blac	khawk A-5H				
API Number:	43-007-31402						
Lease:	Fee						
Location: Bottom Location 1: Bottom Location 2: Bottom Location 3:	SW SE	Sec. 20 Sec. 20 Sec. 20 Sec. 20	<ul> <li>T. 13 South R. 10 East</li> </ul>				

#### **Conditions of Approval**

#### 1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### 2. Notification Requirements

The operator is required to notify the Division of Oil, Gas and Mining of the following action during drilling of this well:

- 24 hours prior to cementing or testing casing contact Dan Jarvis
- 24 hours prior to testing blowout prevention equipment contact Dan Jarvis
- 24 hours prior to spudding the well contact Carol Daniels
- Within 24 hours of any emergency changes made to the approved drilling program contact Dustin Doucet
- Prior to commencing operations to plug and abandon the well contact Dan Jarvis

The operator is required to get approval from the Division of Oil, Gas and Mining before performing any of the following actions during the drilling of this well:

- Plugging and abandonment or significant plug back of this well contact Dustin Doucet
- Any changes to the approved drilling plan contact Dustin Doucet

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voice mail message if the person is not available to take the call):

Dan Jarvis at: (801) 538-5338 office (801) 942-0871 home
 Carol Daniels at: (801) 538-5284 office

• Dustin Doucet at: (801) 538-5281 office (801) 733-0983 home

#### 3. Reporting Requirements:

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

Page 2 43-007-31402 July 1, 2008

- 4. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)
- 5. In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

FORM 3160-3 RECEIVED OFFICE FORM APPROVED OMB No. 1004-0137 Expires July 31, 2010 **UNITED STATES** 2008 APR 29 PM 3: 0 BEPARTMENT OF THE INTERIOR Federal lease 5. Lease Serial No. **BUREAU OF LAND MANAGEMENT** FEE \* See Page 1 SUPO 6. If Indian, Allottee or Tribe Name APPLICATION FOR PERMIT TO DRILL OR DEEPEN N/A 7. If Unit or CA Agreement, Name and No. X DRILL REENTER 1a. Type of Work N/A 8. Lease Name and Well No. CBM X Single Zone Gas Well X Other 1b. Type of Well Oil Well Multiple Zone Blackhawk A-5H Contact: Grant Schluender, Drilling Engineer 2. Name of Operator 9. API Well No. E-mail: Grant.Schluender@anadarko.com 43-007-31402 **Anadarko Petroleum Corporation** 3b. Phone No. (include area code) 1099 18th Street 10. Field and Pool, or Exploratory 3a. Address Denver, CO 80202 720-929-6000 Helper Ferron A 4. Location of Well (Report location clearly and in accordance with any State Requirements.\*) 11. Sec., T., R., M., or Blk. and Survey or Area 1142' FNL, 263' FEL **NE** /4 Lot: Sec. 20 T13S-R10E Lat: 39.685470 Long: -110.817271 Three Horizontal (bird foot) orientation to bottom hole S.L.B.&M. locations. ML ±923' FSL, ±1216' FWL ML-L1 ±711' FSL, At proposed production zone ±2087' FEL ML-R2 ±2328' FSL, ±745' FWL 13. State 14. Distance in miles and direction from nearest town or post office. \* 12. County or parish Approximately 8.6 miles from Price, Utah **Carbon County** UT 15. Distance from proposed location to nearest Unit= N/A 17. Spacing Unit dedicated to this well 16. No. of acres in lease property or lease line, ft. (Also nearest Drig, 160 acres 160 acres unit line, if any) Lease= 263' 19. Proposed depth 20. BLM/BIA Bond No. on file 18. Distance from proposed location to nearest well, drilling, completed or applied for, on this W48000291 4,000' TVD BLM Bond: B20060098 263' lease, ft. 22. Approximate date work will start 23. Estimated duration 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 45 days drilling, 7 days completion 6396.91 **Ungraded Ground Level** July 15, 2008 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form: 4. Bond to cover the operations unless covered by an existing 1. Well plat certified by a registered surveyor. bond on file (see Item 20 above). 2. A Drilling Plan.

- 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- 5. Operator certification.
- 6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature Seleley Q Black	Name (Printed/Typed)  Debby J. Black  (Debby.Black@Anadarko.com)	Date April 14, 2008
Staff Regulatory Analyst	,	720-929-6472 (Direct Line
Approved by (Signature)	Name (Printed/Typed)	Date 7/18/20
Title	Michael Stiewig	1/10/00
Acting Field Manager	Price Field Office	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations

Conditions of approval, if any, are attached.

CONDITIONS OF APPROVAL ATTACHED

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false,

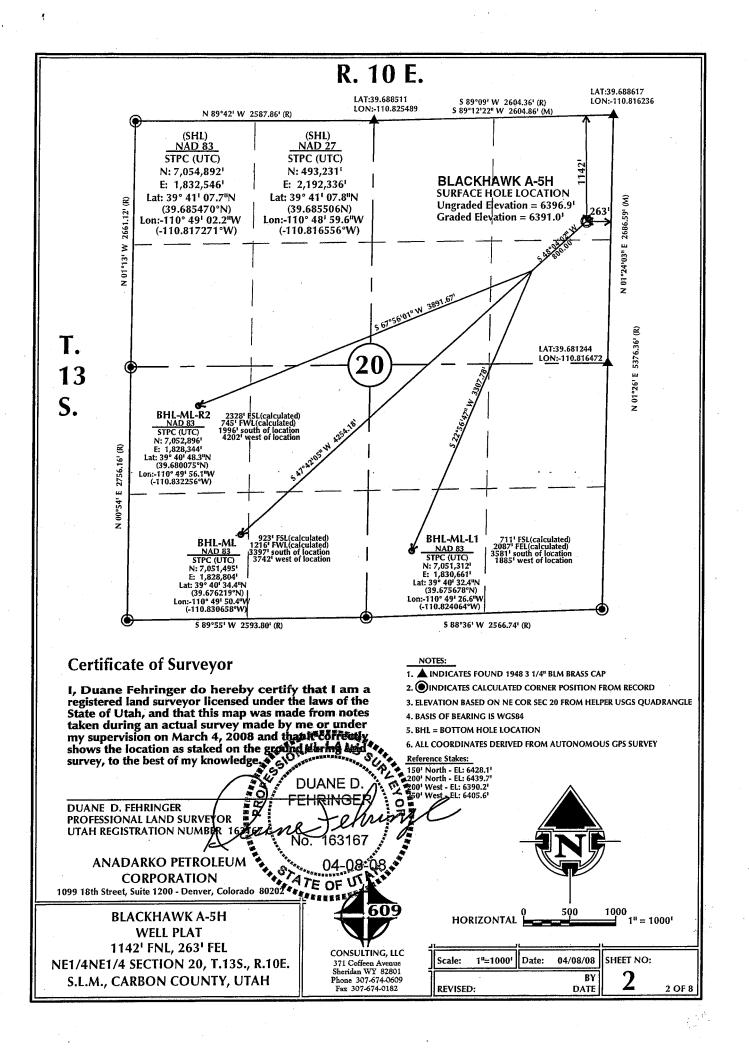
fictitious, or fraudulent statements or representations as

JUL 2 2 2008

AL OF OIL, GAS & MINING

**NOTICE OF** APPROVAL







## UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

PRICE FIELD OFFICE

**125 SOUTH 600 WEST PRICE, UT 84501**  (435) 636-3600



#### CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No: API No:

**Anadarko Petroleum Corporation** 

Blackhawk A-5H

43-007-31402

Location:

NENE-Sec. 20-T13S-R10E

Lease No: UTU-71675

Agreement:

**Undesignated/Ferron** 

Title Acting Field Manager & Authorized Officer:	Name Michael Stiewig	<b>Office Phone Number</b> (435) 636-3633	<b>Cell Phone Number</b> (435) 650-9135
Senior Petroleum Engineer:	Matthew Baker (Primary)	(435) 781-4490	(435) 828-4470
Petroleum Engineer:	James Ashley (Alt.)	(435) 781-4470	(435) 828-7874
Petroleum Engineering Technician Petroleum Engineering Technician	Randy Knight (Primary)	(435) 636-3615	(435) 650-9143
	Walton Willis (Alt.)	(435) 636-3662	(435) 650-9140
NRS/Enviro Scientist:	Nathan Sill (Primary)	(435) 636-3668	
NRS/Enviro Scientist:	Don Stephens (Alt.)	(435) 636-3608	

Fax: (435) 636-3657

#### A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

#### NOTIFICATION REQUIREMENTS

Location Construction (Notify NRS)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify NRS)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings.
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

#### SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- The reserve pit will be lined with an impermeable liner. An impermeable liner is any liner having a permeability less than 10<sup>-7</sup> cm/sec. The liner will be installed so that it will not leak and will be chemically compatible with all substances that may be put in the pit. Liners made of any manmade synthetic material will be of sufficient strength and thickness to withstand normal installation and pit use. In gravelly or rocky soils, a suitable bedding material such as sand will be used prior to installing the liner.
- For reducing visual contrast, all production facilities to remain on-site longer than 6 months will be painted a flat, non-reflective standard environmental color (Olive Black 5WA20-6), approved by the Rocky Mountain Five State Interagency Committee, prior to installation. This Fuller O'Brien color is for reference only. This will include all facilities except those required to comply with Occupational Safety and Health (OSHA) regulations. These facilities will be painted within 6 months of installation the color stipulated by OSHA and the BLM Price Field Office.
- Reserve pits will be closed as soon as possible, but no later than 90 days from time of drilling/well completion, unless the BLM Authorized Officer grants an extension. Squeezing of pit fluids and cuttings is prohibited. Pits must be dry of fluids or the fluids must be removed via vactruck or other environmentally acceptable method prior to backfilling, re-contouring and replacement of topsoil. Mud and cuttings left in pit must be buried at least 3-feet below recontoured grade. The operator will be responsible for re-contouring any subsidence areas that develop from closing a pit before it is sufficiently dry.
- The following appendices are attached for your reference. They are to be followed as conditions of approval:
  - o Appendix 1: Wildlife Seasonal Restriction and Surface Disturbance Mitigation Plan
  - Appendix 2: Seed Mixtures for Reclamation/Revegetation Areas
  - This well is within crucial mule deer winter range and therefore subject to the seasonal closure dates (December 1-April 15)
- Reserve pits will be adequately fenced during and after drilling operations until pit is reclaimed so as to effectively keep out wildlife and livestock. Adequate fencing, in lieu of more stringent requirements by the surface owner, is defined as follows:
  - Construction materials will consist of steel or wood posts. Three or four strand wire (smooth or barbed) fence or hog panel (16-foot length by 50-inch height) or plastic snow fence must be used with connectors such as fence staples, quick-connect clips, hog rings, hose clamps, twisted wire, etc. Electric fences will not be allowed.
  - Construction standards: Posts shall be firmly set in ground. If wire is used, it must be taut and evenly spaced, from ground level to top wire, to effectively keep out animals. Hog panels must be tied securely into posts and one another using fence staples, clamps, etc. Plastic snow fencing must be taut and sturdy. Fence must be at least 2-feet from edge of pit. 3 sides fenced before beginning drilling, the fourth side fenced immediately upon completion of drilling and prior to rig release. Fence must be left up and maintained in adequate condition until pit is closed.

Page 3 of 11 7/18/2008 Well: Blackhawk A-5H

#### **Standard Conditions of Approval**

- The Companies will provide geo-referenced spatial data depicting as-built locations of all facilities, wells, roads, pipelines, power lines, and other related facilities to the BLM by November 1 of each year until completion of project construction activities has occurred.
- If any dead or injured threatened, endangered, proposed, or candidate species is located during construction or operation, the BLM Price Field Office (435-636-3600) shall be notified within 24 hours.
- To reduce the introduction or spread of noxious and invasive weed species via project-related vehicles and equipment into the Project Area, Anadarko and its contractors shall power-wash all construction equipment and vehicles prior to the start of construction.
- Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the operator, or any person working on his behalf, on public land is to be immediately reported to the Price BLM Office. The operator will suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Price BLM Office. An evaluation of the discovery will be made by the BLM to determine appropriate actions to prevent the loss of significant cultural or scientific values. The operator is responsible for the cost of evaluation of any site found during construction. The BLM will determine what mitigation is necessary.

#### Construction

- Construction and surface disturbing activities will not be conducted during periods of frozen or saturated soils when watershed damage or excessive rutting is likely to occur.
- Remove the top 6 inches of topsoil from constructed well locations including areas of cut and fill, and stockpile at the site. Topsoil will also be salvaged for use in reclamation on all other areas of surface disturbance (roads, pipelines, etc.). Clearly segregate topsoil from excess spoil material. Any topsoil stockpiled for one year or longer will be signed and stabilized in accordance with a BLM approved reclamation/revegetation plan.
- Drill pads and facility sites are to be designed to prevent overland flow of water from entering or leaving the site. Storm water collected on disturbed sites will be prevented from flowing off the site and the pad is to be sloped to provide for zero runoff. The drill pad shall be designed to disperse diverted overland flow and to regulate flow velocity so as to prevent or minimize erosion. Well pad diversion outlets shall be equipped with rock energy brakes and gravelbedded dispersion fans.
- The operator will not push soil material and overburden over side slopes or into drainages. All soil material disturbed will be placed in an area where it can be retrieved without creating additional undue surface disturbance and where it does not impede watershed and drainage flows.
- Construct the backslope no steeper than 1½:1, and construct the foreslope no steeper than 2:1, unless otherwise directed by the BLM Authorized Officer.

- Maintain a minimum 20-foot undisturbed vegetative border between toe-of-fill of pad and/or pit areas and the edge of adjacent drainages, unless otherwise directed by the BLM Authorized Officer.
- The reserve pit will be oriented to prevent collection of surface runoff. After the drilling rig is removed, the operator may need to construct a trench on the uphill side of the reserve pit to divert surface drainage around it. If constructed, the trench will be left intact until the pit is closed.
- Culverts will be placed on channel bottoms on firm, uniform beds, which have been shaped to accept them, and aligned parallel to the channel to minimize erosion. Backfill will be thoroughly compacted.
- The minimum diameter for culverts will be 18 inches. However, all culverts will be appropriately sized in accordance with standards in BLM Manual 9113.
- Maximum design speed on all operator-constructed and maintained roads will not exceed 25 miles per hour and all access roads and well location speed limits will not exceed 15 miles per hour.
- During construction, emissions of particulate matter from well pad and road construction would be minimized by application of water or other non-saline dust suppressants with at least 50 percent control efficiency. Dust inhibitors (surfacing materials, non-saline dust suppressants, and water) will be used as necessary on unpaved roads that present a fugitive dust problem. The use of chemical dust suppressants on public surface will require prior approval from the BLM Authorized Officer.
- During the construction phase of the project, Anadarko shall implement an intensive reclamation and weed control program after each segment of project completion. Anadarko will reseed all portions of wells pads and the ROW not utilized for the operational phase of the project. Postconstruction seeding application will continue until determined successful by the BLM or the private surface owner. Weed control will be conducted through an Approved Pesticide Use and Weed Control Plan from the AO.

#### Operations/Maintenance

- All waste, other than human waste and drilling fluids, will be contained in a portable trash cage.
  This waste will be transported to a State approved waste disposal site immediately upon
  completion of drilling operations. No trash or empty barrels will be placed in the reserve pit or
  buried on location. All state and local laws and regulations pertaining to disposal of human and
  solid waste will be complied with.
- Weed and reclamation monitoring shall continue throughout the life of the project until determined successful by the AO. The operator will be responsible for prevention and control of noxious weeds and weeds of concern on all areas of surface disturbance associated with this project (well locations, roads, water management facilities, etc.) Use of pesticides shall comply with the applicable Federal and State laws. Pesticides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of Interior. Prior to the use of pesticides on public land, the holder shall obtain from the BLM authorized officer written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled,

Page 5 of 11 7/18/2008 Well: Blackhawk A-5H

method of application, location of storage and disposal of containers, and any other information deemed necessary by the authorized officer to such use.

- Hydrocarbons shall be put in test tanks on location during completion work. Produced water will be put in the reserve pit during completion work per Onshore Order #7.
- The only fluids/waste materials which are authorized to go into the reserve pit are RCRA exempt exploration and production wastes. These include:
  - o drilling muds & cuttings
  - o rigwash
  - o excess cement and certain completion & stimulation fluids defined by EPA as exempt
    - It does not include drilling rig waste, such as:
      - spent hydraulic fluids
      - · used engine oil
      - used oil filter
      - empty cement, drilling mud, or other product sacks
      - empty paint, pipe dope, chemical or other product containers
      - excess chemicals or chemical rinsate
    - Any evidence of non-exempt wastes being put into the reserve pit may result in the BLM Authorized Officer requiring specific testing and closure requirements.

#### **Producing Well**

- Reclaim those areas not required for production as soon as possible to the surrounding topography.
- All production facilities (including dikes) including gas meters, tank batteries, etc. must be
  placed on the well pad location and a minimum of 15 feet from the toe of the back cut unless
  otherwise approved by the BLM Authorized Officer.
- Any spilled or leaked oil, produced water or treatment chemicals must be reported in accordance with NTL-3A and immediately cleaned up in accordance with BLM requirements. This includes clean-up and proper disposition of soils contaminated as a result of such spills/leaks.
- Distribute stockpiled topsoil evenly over those areas not required for production and reseed as recommended.

#### **Roads and Pipelines**

• All necessary ROWs including pipeline, power line, water line and road, etc. shall be obtained prior to any construction, surface disturbing activities, or drilling.

#### **Dry Hole/Reclamation**

 Interim reclamation will be initiated as soon as is practical after construction and drilling operations. Areas to be reclaimed include but are not limited to road out-slopes, areas disturbed during installation of electric, water and gas lines and areas of well pad sites no longer needed for drilling operation activities. Interim reclamation operations will follow BLM guidelines and only BLM approved seed mixes will be used.

- Upon cessation of production of the project the Proponent will expediently reclaim and reseed all disturbed lands including but not limited to well pad sites, access roads, compressor sites and water treatment facilities, in accordance with BLM guidelines and any pertinent COAs.
- Disturbed lands will be re-contoured back to conform with existing undisturbed topography. No depressions will be left that trap water or form ponds.
- Before the location has been reshaped and prior to redistributing the topsoil, the operator will rip or scarify the drilling platform and access road on the contour, to a depth of at least 12 inches. The rippers are to be no farther than 24 inches apart.
- Distribute the topsoil evenly over the entire location and other disturbed areas. Prepare the seedbed by disking to a depth of 4-to-6 inches following the contour.
- Phased reclamation plans will be submitted to BLM for approval prior to individual POD facility abandonment via a Notice of Intent (NOI) Sundry Notice. Individual facilities, such as well locations, pipelines, discharge points, impoundments, etc. need to be addressed in these plans as they are no longer needed. Individual items that will need to be addressed in reclamation plans include:
- Configuration of reshaped topography, drainage systems, and other surface manipulations
- Waste disposal
- Revegetation methods, including specific seed mix (pounds pure live seed/acre) and soil treatments (seedbed preparation, fertilization, mulching, etc.). On private surface, the landowner should be consulted for the specific seed mix.
- Other practices that will be used to reclaim and stabilize all disturbed areas, such as water bars, erosion fabric, hydro-mulching, etc.
- An estimate of the timetables for beginning and completing various reclamation operations relative to weather and local land uses.
- Methods and measures that will be used to control noxious weeds, addressing both ingress and egress to the individual well or POD.
- Decommissioning/removal of all surface facilities
- BLM will not release the performance bond until all disturbed areas associated with the APD/POD have been successfully revegetated (evaluation will be made after the second complete growing season) and has met all other reclamation goals of the surface owner and surface management agency.
- A Notice of Intent to Abandon and a Subsequent Report of Abandonment must be submitted for abandonment approval.
- For performance bond release approval, a Final Abandonment Notice (with a surface owner release letter on split-estate) must be submitted prior to a final abandonment evaluation by BLM.

- Soil fertility testing and the addition of soil amendments may be required to stabilize some disturbed lands.
- Any mulch utilized for reclamation needs to be certified weed free.

#### DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

#### SITE SPECIFIC DOWNHOLE COAs:

- The proposed 2M BOPE is adequate for anticipated conditions. Any equipment rated higher than 2M need only be tested to 2M standards. Installation, testing and operation of the system shall be in conformance with Onshore Oil and Gas order No. 2.
- Concurrent approval from the State of Utah. Division of Oil, Gas and Mining (DOGM) is required before conducting any surface disturbing activities.
- When drilling with air, the requirements of Onshore Oil & Gas Order No. 2, Part III.E Special Drilling Operations, shall apply. The blooie line discharge point is to be a minimum of 60 feet from the wellhead.
- If cement does not circulate to surface on the 7-inch casing, a cement bond log (CBL), or other
  appropriate tool for determining top-of-cement, shall be run and shall be submitted to the BLM.
- Drilling reports, which describe the activities of each day, shall be submitted to the BLM Price Field Office on a weekly, or more frequent basis. In addition to a daily summary of activities, drilling reports shall include the drilling fluid weight, details of casing and cement, water flows, lost circulation zones and any other information that would contribute to our understanding of drilling conditions.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

#### DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Price Field Office within 24 hours of spudding.
- <u>Notify Price Field Office Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.</u>
- If air drilling operations are utilized, the requirements of Onshore Oil & Gas Order No. 2, Part III.E Special Drilling Operations, shall be implemented.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the
  daily drilling report. Components shall be operated and tested as required by Onshore Oil &
  Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be
  performed by a test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be
  reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.

- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Price Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Price Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Price BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM,
   Price Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the <u>top of cement</u> and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- The use of a flow conditioner in lieu of straightening vanes in the gas meter run cannot be approved with the information provided. This proposal is not consistent with the provisions of Onshore Oil & Gas Order No. 5, and as such, can only be considered for approval as a "variance" from Order No. 5. A written request for variance would identify the Order No. 5 requirement(s) from which the variance is being requested, and it would included supporting justification as to how the alternate method of measurement would meet or exceed the minimum standards established in Order No. 5. A variance request for the use of a flow conditioner would also include the make, model, dimensions, and description of use for the specific flow conditioner being proposed.
- Please submit a copy of all other logs run on this well to the BLM Price Field Office.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Price Field Office.

#### **OPERATING REQUIREMENT REMINDERS:**

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Price Field office must be
  notified when it is placed in a producing status. Such notification will be by written
  communication and must be received in this office by not later than the fifth business day
  following the date on which the well is placed on production. The notification shall provide, as a
  minimum, the following informational items:
  - Operator name, address, and telephone number.
  - Well name and number.
  - Well location (¼¼, Sec., Twn, Rng, and P.M.).
  - Date well was placed in a producing status (date of first production for which royalty will be paid).
  - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - Unit agreement and/or participating area name and number, if applicable.
  - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Price Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Price Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or

data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Price Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Price Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Price Field
  Office Petroleum Engineers will be provided with a date and time for the initial meter calibration
  and all future meter proving schedules. A copy of the meter calibration reports shall be
  submitted to the BLM Price Field Office. All measurement facilities will conform to the API
  standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All
  measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted
  to the BLM Price Field Office within 30 days of installation or first production, whichever occurs
  first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be
  adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively
  sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering
  lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of
  a suitable plan and need prior approval of the BLM Price Field Office. Emergency approval may
  be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
  equipment shall be removed from a well to be placed in a suspended status without prior
  approval of the BLM Price Field Office. If operations are to be suspended for more than 30
  days, prior approval of the BLM Price Field Office shall be obtained and notification given before
  resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

#### STATE OF UTAH

	DEPARTMENT OF NATURAL RESOL			
	DIVISION OF OIL, GAS AND M	INING		5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
SUNDRY	NOTICES AND REPORT	S ON WEL	LS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposals to drill r drill horizontal l	new wells, significantly deepen existing wells below cuaterals. Use APPLICATION FOR PERMIT TO DRILL	urrent bottom-hole dep form for such proposa	th, reenter plugged wells, or to als.	7. UNIT or CA AGREEMENT NAME: N/A
1. TYPE OF WELL OIL WELL	GAS WELL OTHER			8. WELL NAME and NUMBER: BLACKHAWK A-5H
2. NAME OF OPERATOR: ANADARKO PETROLEU	M CORPORATION		<del></del> -	9. API NUMBER: 4300731402
3. ADDRESS OF OPERATOR:			PHONE NUMBER:	10. FIELD AND POOL, OR WILDCAT:
1099 18TH ST. STE 1800 CIT 4. LOCATION OF WELL	y DENVER STATE CO ZII	<sub>P</sub> 80202	(720) 929-6832	HELPER/ FERRON A
	FNL, 263' FEL LAT: 39.685470 I	LONG: -110.8	317271	COUNTY: CARBON
QTR/QTR, SECTION, TOWNSHIP, RAN	IGE, MERIDIAN: NENE 20' 13S	10Ē		STATE: UTAH
11. CHECK APPI	ROPRIATE BOXES TO INDICA	TE NATURE	OF NOTICE, REP	ORT, OR OTHER DATA
TYPE OF SUBMISSION		Т	YPE OF ACTION	
NOTICE OF INTENT	ACIDIZE	DEEPEN		REPERFORATE CURRENT FORMATION
(Submit in Duplicate)	ALTER CASING	FRACTURE	TREAT	SIDETRACK TO REPAIR WELL
Approximate date work will start:	CASING REPAIR	☐ NEW CONS		TEMPORARILY ABANDON
8/8/2008	CHANGE TO PREVIOUS PLANS	OPERATOR		TUBING REPAIR
SUBSEQUENT REPORT	CHANGE TUBING  CHANGE WELL NAME	PLUG AND		VENT OR FLARE
(Submit Original Form Only)	CHANGE WELL STATUS	_	` ON (START/RESUME)	WATER DISPOSAL WATER SHUT-OFF
Date of work completion:	COMMINGLE PRODUCING FORMATIONS		ION OF WELL SITE	
	CONVERT WELL TYPE		TE - DIFFERENT FORMATION	O
for the following: Fee v  1) Buttress Thread Coupli	poration received a verbal approv เม่ายน ng (BTC) will be used as the Sur ary Report will be sent in when th	face Casing	Connection	gas at 0930hrs on 7/31/2008  ekly as stated in the Conditions of  COPY SENT TO OPERATOR  Date: 8.14.2008  Initials: 65
NAME (PLEASE PRINT) Cindy B V	ue	TITL	Regulatory Ana	lyst
SIGNATURE	16 fue	DAT	7/31/2008	
This space for State use APPRO	VED BY THE STATE			RECEIVED
OF U	TAH DIVISION OF SAS, AND MINING			
OIL. C	コイク・インド マン・・・・			AUG - 1 2008

(5/2000)

DIV. OF OIL, GAS & MINING

# DIVISION OF OIL, GAS AND MINING

#### **SPUDDING INFORMATION**

Name of Con	npany:	ny: ANADARKO PETROLEUM CORP								
Well Name:_		BLACKH	AWK A	A-5H						
Api No:	43-007-314	102	Lea	se Type: <u> </u>	EE					
Section 20	Township_	13S Range_	10E	_County	CARBON					
Drilling Con	tractor	H & P		RIG #	298					
SPUDDE	D:									
	Date	08/06/08	<del></del>							
	Time	2:00 PM	<u>_</u>							
	How	DRY								
Drilling wi	ll Commen	ce:								
Reported by		DOUG B	BARON	E						
Telephone #_		(307) 25	8-6086							
Date	08/06/08	Signed	CHD	)						

#### STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL. GAS AND MINING

DIVISION OF OIL, GAS AND MINING	5. LEASE DESIGNATION AND SERIAL NUMBER: FEE *UTU71675
SUNDRY NOTICES AND REPORTS ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	N/A 7. UNIT OF CA AGREEMENT NAME: N/A
1. TYPE OF WELL OIL WELL GAS WELL OTHER CBM	8. WELL NAME and NUMBER: Blackhawk A-5H
2. NAME OF OPERATOR:	9. API NUMBER:
Anadarko Petroleum Corporation  3. ADDRESS OF OPERATOR: [PHONE NUMBER:	43-007-3140 <b>2</b> 10. FIELD AND POOL, OR WILDCAT:
1099 18th St. Ste 1800 CITY Denver STATE CO ZIP 80202 (720) 929-6000	Helper Ferron A
4. LOCATION OF WELL  FOOTAGES AT SURFACE: 1142' FNL, 263' FEL Lat: 39.685470 Long:-110.817271	COUNTY: Carbon County
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 20 13S 10E	STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPO	RT, OR OTHER DATA
TYPE OF SUBMISSION TYPE OF ACTION	
NOTICE OF INTENT  ACIDIZE  DEEPEN  DEEPEN	REPERFORATE CURRENT FORMATION
(Submit in Duplicate)	SIDETRACK TO REPAIR WELL
	TEMPORARILY ABANDON TUBING REPAIR
8/12/2008 CHANGE TO PREVIOUS PLANS OPERATOR CHANGE  CHANGE TUBING PLUG AND ABANDON	VENT OR FLARE
SUBSEQUENT REPORT CHANGE WELL NAME PLUG BACK	WATER DISPOSAL
(Submit Original Form Only)  CHANGE WELL STATUS  PRODUCTION (START/RESUME)	WATER SHUT-OFF
Date of work completion:  COMMINGLE PRODUCING FORMATIONS RECLAMATION OF WELL SITE	OTHER:
CONVERT WELL TYPE RECOMPLETE - DIFFERENT FORMATION	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volume	es, etc.
Anadarko Petroluem is respectfully submitting a change in the Casing Hole Size on the appsubmitted April 14, 2008 and approved July 1, 2008 had the original size hole of 13-3/8".	roved APD. The UDOGM APD
Anadarko requests to change the Casing Hole Size to 13-1/2". A verbal request for approve with Ryan Engas at 8am on 8/8/2008. Please call Drilling Engineer Grant Schluender for a	al was called in to the Price-BLM ny questions 720-929-6557.
Thank you.	
	COPY SENT TO OPERATOR
	Date: <u>8 · 14 · 2008</u> Initials: <u>KS</u>
NAME (PLEASE PRINT) Cindy B Vue TITLE Regulatory Analy	yst
SIGNATURE DATE 8/8/2008	
(This space for State use only)  APPROVED BY THE STATE  OF UTAH DIVISION OF  OIL, GAS, AND MINING	RECEIVED AUG 1 1 2008

ee Instructions on Reverse Side)

DIV. OF OIL, GAS & MINING

(5/2000)

#### FORM 9

# STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL, GAS AND MINING	5. LEASE DESIGNATION AND SERIAL NUMBER: FEE *UTU 71675
SUNDRY NOTICES AND REPORTS ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL OIL WELL GAS WELL OTHER CBM	8. WELL NAME and NUMBER:
2. NAME OF OPERATOR:	Blackhawk A-5H  9. API NUMBER:
Anadarko Petroleum Corporation	43-007-314 <i>0</i> 2
3. ADDRESS OF OPERATOR: 1099 18th St. Ste 1800 CITY Denver STATE CO ZIP 80202 PHONE NUMBER: (720) 929-6832	10. FIELD AND POOL, OR WILDCAT: Helper/ Ferron A
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1142' FNL, 263' FEL	COUNTY: Carbon
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 20 13S 10E	STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REI	PORT, OR OTHER DATA
TYPE OF SUBMISSION TYPE OF ACTION	
NOTICE OF INTENT (Submit in Duplicate)  ACIDIZE  DEEPEN  FRACTURE TREAT	REPERFORATE CURRENT FORMATION SIDETRACK TO REPAIR WELL
Approximate date work will start: CASING REPAIR NEW CONSTRUCTION  CHANGE TO PREVIOUS PLANS  OPERATOR CHANGE	TEMPORARILY ABANDON  TUBING REPAIR
CHANGE TUBING PLUG AND ABANDON	VENT OR FLARE
SUBSEQUENT REPORT CHANGE WELL NAME PLUG BACK	WATER DISPOSAL
(Submit Original Form Only)  CHANGE WELL STATUS  PRODUCTION (START/RESUME)	WATER SHUT-OFF
Date of work completion:  COMMINGLE PRODUCING FORMATIONS RECLAMATION OF WELL SITE	OTHER: SPUD WELL
8/9/2008 CONVERT WELL TYPE RECOMPLETE - DIFFERENT FORMATI	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, vo	olumes, etc.
BLACKHAWK A-5H was SPUD at 10:37am on 8/9/2008.	
Thank you.	
mark you.	
NAME (PLEASE PRINT) Cindy B. Vue	nalyst
SIGNATURE DATE 8/11/2008	
(This space for State use only)	

RECEIVED AUG 1 2 2008

# **STATE OF UTAH**

# DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

			ENTITY ACTION	FORM					
Operator:	ANADA	ARKO PETROLEUM C	CORPORATION	Ope	erator Ac	count Nu	ımber: _l	N <i>0035</i>	
Address:	1099 1	8th St. Ste 1800							
	city De	nver							
	state C	Co .	zip 80202		Р	hone Nu	mber:	(720) 929-6832	
Mai d									
Well 1	umber	Well	Name	QQ	Sec	Twp	Rng	County	
43007	31402	Blackhawk A-5H	in the second	NENE	20	138	10E	Carbon	
Action	Code	Current Entity Number	New Entity Number	S	pud Dat	te		ity Assignment Effective Date	
4.32 - 10.424	<u> </u>	99009	11029		8/9/2008	3	8	111 100	
•		1/777		<u> </u>			<u> </u>	114 / 00	
FR	CONI	DUCTOR SPUD AT 10	D:37AM 8/9/2008	n - 6	Suler	_	70111	3= NWSE	
1/10	<u>SD</u> .	DACI- DWS (BLM)	SW BHL	. <del>d</del>	MSE	<del></del>	DAL	13 - NWSE Lm)	
	(	(BLM)	(FE)	= )			( <b>B</b>	Lm)	
Weil 2	umber	T Wall	l Name	QQ	Sec	Twp	Rng	County	
AFIN	umber	YYEI	Mame	<u> </u>	Sec	ıwp	Kily	County	
Action	Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date		
Commer	nts:								
Well 3		1		T	1 _	· _	I		
APIN	umber	Well	Name	QQ	Sec	Twp	Rng	County	
Action	Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date		
Commer	nts:		RECEIVE	ח			Į.		
								* * * * · · · · · · · · · · · · · · · ·	
B - Add	ablish new e I new well to	entity for new well (single o existing entity (group or from one existing entity t		IINING <sup>Cir</sup>	ndy B. Vu	ie	Vue	,	
	_	from one existing entity t in 'comments' section)	to a new entity	Reg	gulatory	Analyst		8/11/2008	
				Title	)			Date	

Form 3160-5 (August 2007)

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPRO	VED
OMB No. 1004-	0137
Expires: July 31	2010

5. Lease Serial No. FEE \*UTU71675

6. If Indian, Allottee or Tribe Name

N/A

# SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

aparidoried well.	USE FOIII 3160-3 (A	וטו suc	n proposais	•		
	T IN TRIPLICATE – Other	instructions on	page 2.		7. If Unit of CA/Agreen	ment, Name and/or No.
1. Type of Well Oil Well Gas W	Vell Other	8. Well Name and No. BLACKHAWK A-5H	8. Well Name and No.			
2. Name of Operator ANADARKO PETROLEUM CORPO	Economic T				9. API Well No. 43-007-31402	
3a. Address 1099 18TH ST. STE 1800 DENVER, CO 80202	DIATION	3b. Phone No. (	include area code	?)	10. Field and Pool or E HELPER/ FERRON	•
4. Location of Well (Footage, Sec., T., 1142 FNL, 263' FEL LAT: 39.685470 LONG: -1	R.,M., or Survey Description, 10.817271	)			11. Country or Parish, S CARBON, UT	State
12. CHEC	K THE APPROPRIATE BO	X(ES) TO INDI	CATE NATURE	OF NOT	CE, REPORT OR OTHE	R DATA
TYPE OF SUBMISSION			TYP	E OF AC	TION	
✓ Notice of Intent	Acidize Alter Casing	Deepe Fractu	n re Treat	=	duction (Start/Resume) lamation	☐ Water Shut-Off ☐ Well Integrity
Subsequent Report	Casing Repair	_	onstruction	_	complete	✓ Other
Final Abandonment Notice	Change Plans Convert to Injection	Plug a	nd Abandon ack	_	nporarily Abandon ter Disposal	
the proposal is to deepen directions. Attach the Bond under which the violation following completion of the involvesting has been completed. Final determined that the site is ready for the proposed of the proposed over the circulation plug.  Also, due to geology deepening as and production will still be in the Fer Any questions or concerns may be a Grant Schluender Drilling Engineer Anadarko Petroleum Corporation Direct: 720.929.6557 Main: 720.929.6000	work will be performed or proved operations. If the operation Abandonment Notices must be final inspection.)  set two kick-off plugs at a ne loss zone at 2450' - 250 seen obtaining core and veron "A" formation.	ovide the Bond Non results in a mibe filed only after the depth of 3300'-00'. All three plut	o. on file with BI litiple completion all requirements 3600' and from gs will be Class	M/BIA. or recom, including 3000'-329 "A" with	Required subsequent report pletion in a new interval, greclamation, have been 90°. In addition to the place with the	orts must be filed within 30 days a Form 3160-4 must be filed once completed and the operator has  lan and due to extreme losses a tion of 12% Gypsum in the lost-
14. I hereby certify that the foregoing is to CINDY B VUE	rue and correct. Name (Printe	d/Typed)				
Signature Ough	B Vhe		Title REGULA  Date 08/27/200		NALYST	
V	THIS SPACE	FOR FEDEI	RAL OR STA	TE OF		
Approved by		AP	ROVED		THE STATE	Federal Approval Of Thi Pate Action Is Necessary
Conditions of approval, if any, are attached that the applicant holds legal or equitable the entitle the applicant to conduct operations	thereon.		IL GAS	AN 192	DAING 1081	- RECENTED
Title 18 U.S.C. Section 1001 and Title 43 fictitious or fraudulent statements or representations.					hate to any department	- 110
(Instructions on page 2)		BY	: 4/0	¥**		AUG 2 8 2008

#### **GENERAL INSTRUCTIONS**

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

#### SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13 - Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment.

#### NOTICES

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and grantingapproval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

ACHARDED OF THEFT AND

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

#### Vue, Cindy

From:

Jim Ashley@blm.gov

Sent:

Wednesday, August 27, 2008 11:33 AM

To:

Vue, Cindy; Schluender, Grant

Cc:

Katie\_Nash@blm.gov, Randy\_Knight@blm.gov, Walton\_Willis@blm.gov

Subject:

Re: Blackhawk A-5H Cement Plug Sundry

Attachments:

BLACKHAWK A-5H SUNDRY 8-27-08.tif



BLACKHAWK A-5H SUNDRY 8-27-08....

Cindy & Grant,

This email is verbal/oral approval to proceed as per the attached Sundry Notice. When you are ready to set the cement plugs, please notify Walton Willis, PET Price Field Office, 435-650-9140 cell or Randy Knight, PET Price Field Office, 435-650-9143 cell, so one of the PETs can witness the cement plugs if available.

Sincerely,

Jim Ashley Senior Petroleum Engineer BLM Vernal Field Office 435-781-4470 office 435-828-7874 cell

> "Vue, Cindy" <Cindy.Vue@anadar ko.com>

08/27/2008 11:03

AΜ

<Jim\_Ashley@blm.gov>

CC

To

"Schluender, Grant"

<Grant.Schluender@anadarko.com>

Subject

Blackhawk A-5H Cement Plug Sundry

Dear Jim:

Attached is the sundry for Blackhawk A-5H about the Cement Plugs for your review. This will be sent overnight via UPS today. Thank you.

<<BLACKHAWK A-5H SUNDRY 8-27-08.tif>>

Cindy H Vue Anadarko E&P Company, LP RECEIVED

AUG 28 2008

PO BOX 173779, Denver, CO 80217-3779 1099 18th St. Ste 1800, Denver, CO 80202 Regulatory Analyst Direct: 720 929-6832 Fax: 720 929-7832 Cindy. Vue@anadarko.com

\*\*\* Please note email change: Cindy. Vue@anadarko.com Thank you! \*\*\* Aka-Cindy Hur (Maiden Name)

Anadarko Confidentiality Notice: This electronic transmission and any attached documents or other writings are intended only for the person or entity to which it is addressed and may contain information that is privileged, confidential or otherwise protected from disclosure. If you have received this communication in error, please immediately notify sender by return e-mail and destroy the communication. Any disclosure, copying, distribution or the taking of any action concerning the contents of this communication or any attachments by anyone other than the named recipient is strictly prohibited. (See attached file: BLACKHAWK A-5H SUNDRY 8-27-08.tif)

RECEIVED

#### STATE OF UTAH

		DEPARTMENT OF N							
	I	DIVISION OF OIL	, GAS AND MIN	VIN	G				SE DESIGNATION AND SERIAL NUMBER: J 71675 *FEE
	SUNDRY	NOTICES AN	D REPORTS	0	N WEL	LS	L	N/A	DIAN, ALLOTTEE OR TRIBE NAME:
Do	not use this form for proposals to drill ne drill horizontal la	ew wells, significantly deepen terals. Use APPLICATION Fo	existing wells below curre OR PERMIT TO DRILL fo	ent bo	ttom-hole depti such proposal	n, reenter plugged wo s.	alla arta	7. UNIT	For CA AGREEMENT NAME:
1. TY	PE OF WELL OIL WELL			L NAME and NUMBER: khawk A-5H					
	AME OF OPERATOR: adarko Petroleum Corp	oration					I .		NUMBER: 0731402
	DDRESS OF OPERATOR:					PHONE NUMBER:			LD AND POOL, OR WILDCAT:
		Denver	STATE CO ZIP	802	02	(720) 929-6	832		
	OCATION OF WELL  OOTAGES AT SURFACE: 1142' F	FNL, 263' FEL LA	AT: 39.685470 I	LON	IG: -110.	817271	C	COUNT	Y: CARBON
Q <sup>-</sup>	TR/QTR, SECTION, TOWNSHIP, RANG	GE, MERIDIAN: NENE	20 138 10	0E			S	STATE:	UTAH
11.	CHECK APPF	ROPRIATE BOXE	S TO INDICAT	EΝ	ATURE (	OF NOTICE,	REPORT	T, OI	R OTHER DATA
	TYPE OF SUBMISSION				TY	PE OF ACTION	V		
<b>✓</b>	NOTICE OF INTENT	ACIDIZE			DEEPEN				REPERFORATE CURRENT FORMATION
	(Submit in Duplicate)	ALTER CASING		Ц	FRACTURE				SIDETRACK TO REPAIR WELL
	Approximate date work will start:	CASING REPAIR	0110 Pt 4110	님	NEW CONST			Н	TEMPORARILY ABANDON
		CHANGE TO PREVIOUS CHANGE TUBING	JUS PLANS		OPERATOR PLUG AND A				TUBING REPAIR
П	SUBSEQUENT REPORT	CHANGE WELL NAM	4E	$\vdash$	PLUG BACK	BANDON		片	VENT OR FLARE WATER DISPOSAL
	(Submit Original Form Only)	CHANGE WELL STA		$\vdash$		N (START/RESUME	3	Н	WATER SHUT-OFF
	Date of work completion:	12	UCING FORMATIONS	H		ON OF WELL SITE	,		отнея: Drill Cement out with
		CONVERT WELL TY		Н		E - DIFFERENT FO	RMATION	<b>Y</b> .	3-1/2" Drillpipe
12.	DESCRIBE PROPOSED OR CO	MPI ETED OPERATION	S. Clearly show all be	ertine	nt details inc	tuding dates dent	ths volumes	etc	
An		uests to drill ceme	nt out of 7" casi	ing a	and 10' o	utside of the	guide sh	oe w	rith 3-1/2" drillpipe without
Ve	rbal approval was recei	ved at 0930hrs on	16Sept2008 fro	om .	Jim Ashle	ey, Senior Pe	etroleum I	Engi	neer at the Vernal BLM.
							COPY SE	NT T	O OPERATOR
							D.1 1	ח ו	14,2008
									4.2008
							Initials:_	*	<u></u>
NAM	E (PLEASE PRINT) CINDY B \	/UE			TITLE	REGULAT	TORY AN	IALY	ST
SIGN	IATURE Chief	B Vue	<u>پ</u>		DATE	9/16/2008	3		
			Thekilen						

(This space for State use only)

(EQUEST DENIE)
Utah Division of
Oil, Gas and Mining

**RECEIVED** SEP 17 2008

DIV. OF OIL, GAS & MINING

(5/2000)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL, GAS AND MINING	5. LEASE DESIGNATION AND SERIAL NUMBER: FEE *UTU71675
SUNDRY NOTICES AND REPORTS ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	7. UNIT or CA AGREEMENT NAME:  N/A
1. TYPE OF WELL OIL WELL GAS WELL OTHER CBM	8. WELL NAME and NUMBER: BLACKHAWK A-5H
2. NAME OF OPERATOR: Anadarko Petroleum Corporation	9. API NUMBER: 43-007-31462
3. ADDRESS OF OPERATOR: PHONE NUMBER: 1999	10. FIELD AND POOL, OR WILDCAT:
1099 18th St. Ste 1800 CITY Denver STATE CO ZIP 80202 (720) 929-6832	HELPER/FERRON A
FOOTAGES AT SURFACE: 1142' FNL, 263' FEL LAT: 39.685470 LONG: 110.817271	COUNTY: Carbon
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 20 13S 10E	STATE: UTÂH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPOI	RT, OR OTHER DATA
TYPE OF SUBMISSION TYPE OF ACTION	
✓ NOTICE OF INTENT □ ACIDIZE □ DEEPEN	REPERFORATE CURRENT FORMATION
(Submit in Duplicate)  ALTER CASING  FRACTURE TREAT	SIDETRACK TO REPAIR WELL
Approximate date work will start: CASING REPAIR NEW CONSTRUCTION	TEMPORARILY ABANDON
10/28/2008 CHANGE TO PREVIOUS PLANS DEPARTOR CHANGE	TO TOUR REPAIR OF THE PROPERTY
CHANGE TUBING PLUG AND ABANDON  SUBSEQUENT REPORT CHANGE WELL NAME PLUG BACK	VENT OR FLARE
(Submit Original Form Only)  CHANGE WELL NAME  PRODUCTION (START/RESUME)	WATER DISPOSAL WATER SHUT-OFF
Date of work completion:  COMMINGLE PRODUCING FORMATIONS  RECLAMATION OF WELL SITE	OTHER: WELL: SHUT-IN
CONVERT WELL TYPE RECOMPLETE - DIFFERENT FORMATION	Status
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volume	es, etc.
ි. අතුරු මෙම සිට කිරීමට අතුරු ක්රියා අතුරු කරන කරන කරන කරන කරන සිට කරන කරන සිට කරන කරන කරන කරන කරන කරන කරන කරන කරන	Qualifa,AdMini, ktok vita u in Hegi
After setting 7" intermediate casing at 4,490' and a 5-1/2" concentric casing string to 4,279', 6,239'. Failing to encounter the Ferron 'A' coal section, a decision has been made to susper drilling rig off pending a full evaluation to determine how the coal section can best be interced. The 5-1/2" concentric casing string be pulled and laid down and a balanced cement plug be After tagging the cement plug to confirm setting, the drilling string will be laid down, the wellf location. It is anticipated that evaluation of drilling alternatives will be conducted through the further drilling attempted within one year.	nd drilling operations and move the pted and drilled. It is proposed that set from +/-4,300' - 4,100' (200'). nead capped and the rig moved off
and the state of t	n de la 1715 de la companya de la co
and the second of the second o	COPY SENT TO OPERATOR
describit to the first of the f	
	Date: 11.75.2008
	Initials:
NAME (PLEASE PRINT) Cindy B. Vue TITLE Regulatory Analy	st San
SIGNATURE DATE 10/27/2008	e e divine Compositorio di Normania di Normania di Normania di Nor
APPROVED BY THE STATE  OF UTAH DIVISION OF  OF UTAH DIVISION OF	RECEIVED
OF UTAH DIVISINING OIL, GAS, AND MINING	OCT 2 8 2008

(5/2000)

DIV. OF OIL, GAS & MINING

#### STATE OF UTAH

DIVISION OF OIL, GAS AND MINING	5. LEASE DESIGNATION AND SERIAL NUMBER: FEE *UTU71675		
SUNDRY NOTICES AND REPORTS ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	7. UNIT OF CA AGREEMENT NAME:		
1. TYPE OF WELL OIL WELL GAS WELL OTHER CBM	8. WELL NAME and NUMBER: BLACKHAWK A-5H		
2. NAME OF OPERATOR: Anadarko Petroleum Corporation	9. API NUMBER: 43-007-31407		
3. ADDRESS OF OPERATOR: 1099 18th St. Ste 1800 CITY Denver STATE CO ZIP 80202 PHONE NUMBER: (720) 929-6832	10. FIELD AND POOL, OR WILDCAT: HELPER/FERRON A		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1142' FNL, 263' FEL LAT: 39.685470 LONG: 110.817271  QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 20 13S 10E	COUNTY: Carbon STATE: UTAH		
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPO	RT, OR OTHER DATA		
TYPE OF SUBMISSION TYPE OF ACTION			
NOTICE OF INTENT (Submit in Duplicate)  ACIDIZE  DEEPEN  ACIDIZE  The proof of the	REPERFORATE CURRENT FORMATION SIDETRACK TO REPAIR WELL		
Approximate date work will start:  CASING REPAIR  NEW CONSTRUCTION  CHANGE TO PREVIOUS PLANS  OPERATOR CHANGE	TEMPORARILY ABANDON TUBING REPAIR		
CHANGE TUBING PLUG AND ABANDON	VENT OR FLARE		
SUBSEQUENT REPORT CHANGE WELL NAME PLUG BACK (Submit Original Form Only)	WATER DISPOSAL		
Date of work completion:  CHANGE WELL STATUS  PRODUCTION (START/RESUME)	WATER SHUT-OFF		
COMMINGLE PRODUCING FORMATIONS RECLAMATION OF WELL SITE  CONVERT WELL TYPE RECOMPLETE - DIFFERENT FORMATION	✓ OTHER: Drilling Summary		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volum	ee etc		
DEGOTABLE FROM GOLD ON GOME LEFED OF ENVIRONGE. Clearly show all pertirent decards including dates, deputs, volume			
Attached is the Drilling Operation Summary Report. Thank you.			
entre de la composition de la filippe de Als la filippe de la filip La filippe de la filippe d			
en e			
and the second of the second o			
NAME (PLEASE PRINT) Cindy B. Vue TITLE Regulatory Analy	yst		

(This space for State use only)

RECEIVED

OCT 28 2008

			On	eratio		mmai	ry Report	
Well: BLACKi	HAWK A-SH						, ,	
Project: UTAL			Site: CA	ARBON				Rig Name No: H&P 298/298
Event: DRILL	<del></del>		Start Da	ate: 7/30	/2008	End D	late <sup>.</sup>	Spud Date: 8/14/2008
	RKB @6,423.00ft	(above Mea						/1,142.00/E/0/0/0
Date	Time	Duration	Phase	Code	Subco	P/U	MD From	Operation
7/30/2008	Start-End 7:00 - 17:00	10.00	MAINT	02	de2	P	(ft)	MIRU NELCO DOZERS & TRACK HOE. STARTED CONSTRUCTION OF ROAD LOCATION. COMPLETED - INSTALLED 100' 24". INSTALLED PIT ANCHOR FOR BLEWY LINE.
8/3/2008	19:30 - 21:00	1.50	RDMO	01	E	P		Rig down back yard
	21:00 - 0:00	3.00	RDMO	01	E	P		Wait on daylight
8/4/2008	0:00 - 6:00	6.00	RDMO	01	E	P		Wait on daylights
	6:00 - 20:00	14.00	RDMO	01	E	P		Rig down rotary tools, lower derrick, gas buster, shaker skid, sub and secure all lose equipment for long road trip
	20:00 - 0:00	4.00	22110	24	-	_		Stack out back yard along road and prep for haul trucks in the morning. Wait on derrick
01510000		4.00	RDMO	01	E	P		Wait on daylight
8/5/2008	0:00 - 6:00	6.00	RDMO	01	E	P		Wait on daylight
	6:00 - 20:00	14.00	RDMO	01	Α	P		Load both generators, mud pump, diesel tanks, mud tanks, crown section of derrick, oil house, water tank, company mans house, mud loggers house, shaker skid, VFD, MCC. Total of 16 loads left for Utah
	20:00 - 0:00	4.00	RDMO	01	Α	Р		Wait on daylight
8/6/2008	0:00 - 6:00	6.00	RDMO	01	Α	P		Wait on daylight
	6:00 - 18:00	12.00	RDMO	01	A	P		Continue to move rig to location. Assembly equipment in preparation for rig up. The following equipment has arrive on location: Crown section of derrick, mud mixing tank, #1 pump, settling mud tank, diesel tank, water tank, cat walk, beaver slide, drill collars and HWDP, Co-man's house, 1 double sleeper house, oil house, both generators, draw works, drilling line, BOP skid, shaker skid, drillers side sub, center sub, dog house, change house, VFD house, HPU house, toolpushers house. There is more edquipment on the road.
	18:00 - 0:00	6.00	RDMO	01	Α	Р		Wait on daylight
8/7/2008	0:00 - 6:00	6.00	RDMO	01	Α	Р		Wait on daylight
	6:00 - 18:00	12.00	RDMO	01	A	Р		Continue to move the following rig to location: Choke & trip tank, parts house, rig crew living quarters, BOP handler, Potable water tank, connex, pit side of sub, bottom of derrick. Rearrange equip on lower location and set 1-DBL ended sleeper, H&P crew quarters and old co-man's office. #2 mud pump and MCC house was in Roosevelt, UT
	18:00 - 0:00	6.00	RDMO	01	Α	Р		Wait on daylight
0/0/0000	0.00	0.00		~4		_		

01

**RDMO** 

Α

s



Wait on 3D Drilling and daylight

OCT 28 2008

8/8/2008

0:00 - 6:00

6.00

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

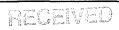
Event: DRILLI	NG			Start Da	ate: 7/30/2	2008	End Date	Spud Date: 8/14/2008
Active Datum: RKB @6,423.00ft (above Mean Level)		n Sea	UWI: 0/	13/S/10	NE/6/PM/N/1,142.00/E/0/0/0/0			
Date	图 2 G 2 C 2 C 2 C 2 C 2 C 2 C 2 C 2 C 2 C	Time irt-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From Operation (ft)
	6:00	- 18:00	12.00	RDMO	12		S	Wait on 3D Drilling to arrive on location; 06:00 hrs contact; rig was loading up and headed to location. 10:30 hrs contact; rig in route to location. 14:00 hrs contact; truck hauling pipe, cellar ring and digging tools was lost in Helper UT, they were directed to location, truck un-hooked from trailer and drove to Wellington to wait on rig. 16:30 hrs contact; rig stuck in Utah/Colorado port of entry trying to get all permits needed to enter Utah. 20:00 hrs contact; rig had cleared all necessary permits to leave port of entry but could not leave due to truck hauling it does not have proper authority to enter Utah and waiting to be cleared.
								All rig components are on location
		- 0:00	6.00	RDMO	12	E	S	Wait on 3D Drilling and daylight
8/9/2008		- 6:00	6.00	RDMO	01	Α	S	Wait on 3D Drilling and daylight
		- 10:00	4.00	DRLCON		D	Р	Wait on 3D Drilling
		- 10:30	0.50	DRLCON		D	P	Unload 3D Drilling rathole rig
		- 20:30	10.00	DRLCON		D	Ρ	Drill conductor hole to 65' at 20:30 hrs
		- 0:00	3.50	DRLCON		D	P	Continue to drill conductor w/ 3D Drilling. H&P shut down and wait on daylight
8/10/2008		- 6:00	6.00	DRLCON		D	S	Drill conductor to 80' GL and cellar
	6.00	- 11:00	5.00	DRLCON	01	D	S	Pickup conductor pipe and weld together. Cement conductor w/ Superior
	11:00	- 0:00	13.00	DRLCON	01	D	S	Drill mouse hole, hard rock drilling
8/11/2008		- 6:00	6.00	DRLCON		D	Р	Wait on welder and daylight
		- 8:00	2.00	DRLCON		D	Р	Weld up mouse hole pipe
	8:00	- 9:30	1.50	DRLCON		D	P	Wait on Superior Well Service
	9:30	- 12:00	2.50	DRLCON		D	Р	Finish cementing top of conductor and cement mouse hole
	12:00	- 13:00	1.00	DRLCON	01	В	P	Lay out location for rig up
	13:00	- 13:30	0.50	DRLCON	01	В	Р	HSM w/ Hemphill trucking and rig crews
		- 20:00 - 0:00	6.50 4.00	DRLCON		<b>B</b>	P	MIRU the following equipment: shaker skid, settling tank, suction tank, both mud pumps, MCC house, water tank, oil house, VFD house, both generators, diesel tank, draw works, mud boat, BOP handler, substructure and raise substructure. Estimate 55-60% rigged up Wait on daylight
8/12/2008	0:00	- 6.00	6.00	DRLCON		В	Р	Wait on daylight
		- 20:00	14.00	DRLCON	01	В	P	Continue to rig up the following equipment: Set and raise dog house, raise shakers, raise gas buster, install flow line, cat walk, beaver slide, set parts house, set HPU, assemble derrick and raise, derrick up at 16:25 hrs, set houses on location, hookup electrical lines, set pipe racks and load w/ BHA, unload casing
		- 0:00	4.00	DRLCON		В	P	Wait on daylight
8/13/2008	0:00	- 6:00	6.00	MIRU	12	D	Р	WAIT ON DAYLIGHT.
	6:00	- 22:00	16.00	MIRU	01	В	P	Continue to rig up the following equipment: Install flow line, rig up floor, hook up flare lines, Set house on location, hookup electrical lines, set pipe racks and load w/ BHA,
	22:00	- 0:00	2.00	MIRU	05	Α	P	Mix spud mud - pickup BHA
8/14/2008		- 1:00	1.00	PRPSPD		A	P	ATTEMPT TO MAKE UP BIT WITH SCORPION
3/1-1/2000	55	1.00	1.00				rems.	HAVING TROUBLE WITH ADJUSTMENT ARMS

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Level)								
Date	Sta	Fime int-End	Duration (hr)	Phase	Code	Subco de2	P/U MD From (ft)	Operation
	1:00	- 7:00	6.00	PRPSPD	07	Α	X	WAIT ON NEW SCORPION
		- 8:00	1.00	PRPSPD	07	В	X	ATTEMPT TO MAKE UP BIT.
	8:00	- 13:00	5.00	PRPSPD	07	Α	X	WAIT ON WELDER/ CUT BIT BREAKER TO FIT IN SCORPION.
and the late of the late of	13:00	- 14:00	1.00	PRPSPD	05	Α	P	MAKE UP BIT, RUN IN HOLE AND TAGGED CMT.
	14:00	- 14:30	0.50	DRLSUR	02	F	<b>P</b>	DRILL 30 OF CMT.
	14:30	- 21:00	6.50	DRLSUR	02	В	P	DRILL F/105-T/318, WOB-11-18, SPP ON/OFF- 423/1009, TORQUE ON/OFF- 2-0K, ROTORY RPM-40-60, MOTOR RPM-158, SPM-1160, GPM-720, MW-9.0, VIS-37
	21:00	- 21:30	0.50	DRLSUR	09	Α	P	WIRELINE SURVEY@ 260 - 2.5 DEG.
	21:30	- 22:00	0.50	DRLSUR	07	Α	Р	LEVEL DERRICK
	22:00	- 0:00	2.00	DRLSUR	02	Α	P	DRLG F/318-T/ 368 , WOB 15 - 20, ROT 50 - 70, TORQUE OFF/ON 0-3K, SPM 160, MUD MTR.720
014510000	0.00	- 0:30	0.50	DDI CUD	00			GPM - 158 RPM, TOP DRIVE 50 TO 70 RPM, SPP ON/OFF 1155/455
8/15/2008		i.	0.50	DRLSUR	02	В	Р	DRLG F/368-379, WOB 15 - 20, ROT 50 - 70, TORQUE OFF/ON 1-3K, SPM 160, 720 GPM MOTOR RPM 115,, TOP DRIVE 50 TO 70 RPM, SPP ON/OFF 1155/950
	0:30	- 1:00	0.50	DRLSUR	07	Α	P	INSPECT DERRICK AND TOP DRIVE. CHANGE OUT EXTENTION PORT ON GRABBER, TIE DOWN BOLTS ON CAP. (LOTS OF VIBRATION
1997 A. BANDA BANDA T	1:00	- 5:30	4.50	DRLSUR	02	<b>B</b>		WHILE DRILLING SURFACE.  DRLG F/379-535, WOB 15 - 20, ROT 50 - 70, TORQUE OFF/ON 1-3K, SPM 160, 720 GPM MOTOR RPM 115, TOP DRIVE 50 TO 70 RPM, SPP ON/OFF 1155/950
	5:30	- 6:30	1,00	DRLSUR	04	С	(P	CIRC AND CLEAN HOLE, DROP SURVEY (MISS RUN ON SURVEY)
	6:30	- 9:00	2.50	DRLSUR	05	Α	Р	TRIP OUT, L/D 8" TOOLS. NO TIGHT SPOTS ON TRIP.
	9:00	- 12:00	3.00	DRLSUR	11	Α	P	SAFETY METTING ON PICKING UP PIPE WITHOUT LAY DOWN MACHINE RIG UP CASING EQUIPMENT
resistant property for the sec	12:00	- 14:30	2.50	DRLSUR	12	E	X	WAIT ON BACK UP TONGS FOR CASING.
	14:30	- 17:30	3.00	DRLSUR	11	В	P	MAKE UP SHOE AND RUN 13 JTS OF 10 3/4 32.75#, H-40 STC LAND AT 530' HAD TO PUMP IN 7 JTS. TO BTM. DO TO FLOATING AND CENTRI: DRAGGING IN HOLE AND NOT ENOUGH WT TO PUSH TO BTM.
	17:30	- 19:00	1.50	DRLSUR	04	Ē	Р	CIRC AND RIG DOWN CSG. EQ.AND RIG UP CMT. EQ.
	19:00	~ 20:00	1.00	DRLSUR	15	Α		CMT WITH SUPERIOR AND CMT WITH. 350 SKS. CLASS G 15.6#, 1.18 YIELD, 5.20 GAL/SK, 22 BBLS BACK TO SURFACE BUMPED PLUG WITH 500 PSI OVER HELD FOR 5 MINS FLOATS HELD.
	20:00	- 0:00	4.00	DRLSUR	12	В	e e de grante d'ille e e ille mage. P	WAIT ON CMT.
8/16/2008		- 4:30	4.50	DRLIN1	18	Ā	P	REMOVE CMT HEAD, LIFT CONDUCTOR CUT HOLES IN CASING TO DRAIN, CUT OFF CASING AND L/D, CLEAN CELLAR TO WELD ON WELLHEAD. MAKE FINAL CUT ON CASING.
and the second section of		- 7:00	2.50	DRLIN1	18	Α	<b>P</b>	WELD ON WELLHEAD AND TEST TO 900 PSI AND HELD FOR 20 MIN. GOOD TEST.
	7:00	- 20:30	13.50	DRLIN1	13	Α	P	INSTALL B SECTION AND NIPPLE UP BOPE
	20:30	- 0:00	3.50	DRLIN1	13	С	P	PRESSSURE TEST BOPS



## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

Active Datum:   Level)	RKB @	6,423.00f	t (above Mea	n Sea	UWI: 0	0/13/S/10/	E/20/0/NENE/6/PM/N	/1,142.00/E/0/0/0/0
Date	Sta	Fime art-End	Duration (hr)	Phase	Code	Subco de2	P/U MD From (ft)	Operation
8/17/2008		- 3:00	3.00	DRLIN1	13	С	P	TEST BOPE 250 PSI FOR 5 MIN, 3000 PSI FOR 10 MIN, TEST CASING TO 1000 PSI FOR 30 MIN, TESTED ANNULAR 1750 PSI.
		- 4:00	1.00	DRLIN1	13	Α	P	FINISH NIPPLE UP.
		- 4:30	0.50	DRLIN1	13	Α	Р	INSTALL WEAR BUSHING.
		- 7:00	2.50	DRLIN1	05	Α	P	PICK UP BHA
		- 7:30	0.50	DRLIN1	18	Α	P	TIGHTEN ROT. HEAD FLANGE
	7:30	- 8:00	0.50	DRLIN1	02	Ė	9 <b>8</b> 20. jan – 1. jan	DRLG CMT, TAG CMT @ 476, FLOAT @ 483, SHOE@ 530
	8:00	- 11:30	3.50	DRLIN1	02	В	Р	DRLG F/530' T/892', WOB 16K, RPM 48, TQ ON/OFF BTM 4/1, SPM #1 111, GPM 498, SPP ON/OFF BTM 986/878 RPM, MUD MTR RPM 79, ROP 30'
	11:30	- 12:00	0.50	DRLIN1	09	Α		WIRELINE SURVEY @ 823 X PULSE 4.1 DEG.
e war firster i Weser i	12:00	- 16:30	4.50	DRLIN1	02	В	P	DRLG F/892 T/960, WOB 4K, RPM 65, TQ ON/OFF 1/1K, SPM #1 111, GPM 498, SPP ON/OFF BTM 986/930 PSI MUD MTR. 79 RPM ROP 30'
	16:30	- 17:00	0.50	DRLIN1	06		- <b>p</b> 365666643	SERVICE RIG - CALIBRATE PASON WT
n Artist II i tilga er kalkninga.		- 22:00	5.00	DRLIN1	02	В	<b>P</b>	DRLG F/ 960 T/1054, WOB 6K, RPM 75, TQ ON/OFF 2/1, SPM #2 111, GPM 498, SPPON/OFF BTM 990/920 PSI, MUD MTR 79, ROP 30'
		- 22:30	0.50	DRLIN1	09	Α		WIRELINE SURVEY @ 964 4.0 DEG., XPULSE 3.7 DEG. AZ. 216.6
	22:30	- 0:00	1.50	DRLIN1	02	В	Р	DRLG F/1054 T/1120', WOB 6K, RPM 75, TQ ON/OFF BTM 2/1K, SPM #2 111, GPM 498, SPP ON/OFF BTM 030/933 PSI, MUD MTR. 79,ROP 30'
8/18/2008	0:00	- 1:00	1.00	DRLIN1	02	В*	P	DRLG F 1120 T 1150, WOB 6K, RPM 75, TQ ON/OFF BTM 2/1 SPM #2 111, GPM 498, SPP ON/OFF BTM 1030/933, MUD MTR RPM 79, ROP 30'
(4) 40 전원(전보) 1948( 21년 -	1:00	- 1:30	0.50	DRLIN1	09	Α	es del mario de la composito de la Particio de Mario. La P	WIRELINE SURVEY @ 1063 4.5 DEG.
		- 4:30	3.00	DRLIN1	02	B	Þ	DRLG F 1150 T 1245, WOB 6K, RPM 75, TQ ON/OFF BTM 2/1 SPM #2 111, GPM 498, SPP ON/OFF BTM 1030/933, MUD MTR RPM 79, ROP 30'
	4:30	- 5:00	0.50	DRLIN1	09	Α		WIRELINE SURVEY @ 1157 3 1/4 DEG.
		- 7:30	2.50	DRLIN1	02	B	P	DRLG F 1245 T 1348, WOB 6-10K, RPM 75, TQ ONOFF BTM 2/1 SPM #2 111, GPM 498, SPP ONOFF BTM 1047/982, MUD MTR RPM 79, ROP 41'
	7:30	- 8:00	0.50	DRLIN1	09	Α	e e desirale de l'est de la les P	WIRELINE SURVEY @1276 3.25 DEG. XPULSE 1256, 3.5 DEG 214.5 AZ.
	8:00	- 0:00	16.00	DRLIN1	02	В	P	DRLG F 1348 T 2025 , WOB 10-15K, RPM 75, TQ ON/OFF BTM 2/1 SPM #2 111, GPM 498, SPP ON/OFF BTM 1047/982, MUD MTR RPM 79, ROP 41'
8/19/2008	0:00	- 1:00	1.00	DRLIN1	02	B		DRLG F/2025 T/ 2100 , WOB 18K, RPM 75, TQ OWOFF BTM 2/1, SPM #2 111, GPM 498, SPP OWOFF 1450/1111, MUD MTR RPM 79,
		- 1:30	0.50	DRLIN1	06	A		SERVICE RIG
	1:30	- 8:00	6.50	DRLIN1	02	В	Р	DRLG F/2100 T/2382 , WOB 15K, RPM 75, TQ ON/OFF BTM 4/1K, SPM #2 111, GPM 0N/OFF BTM 498, SPP ON/OFF BTM 1350/1200 PSI, MUD MTR 79 RPM, ROP 43.3'/HR



## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Active Datum: F	Start Da n Sea			E/20/0	/NENE/6/PM/N/1	Spud Date: 8/14/2008 142.00/E/0/0/0/0			
Level)			·						
Date	and the second	Time art-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
		- 12:00 - 12:30	4.00	DRLIN1	02	B A	P		DRLG F/2382-2477, WOB 10K, RPM 75, TQ ON/OFF BTM 3/1K, SPM #2 111, GPM 0N/OFF BTM 498, SPP ON/OFF BTM 1250/1200 PSI, MUD MTR 79 RPM, ROP 23.7"/HR (ANGLE IS BUILDING TO 4.6 USE LIGHTER WT. TO DRILL WITH.) RIG SERVICE
		- 14:30	2.00	DRLIN1	04	D	X		LOST TOTAL CIRC. PUMP LCM PILLS, BUILD
									VOL. LOST 650 BBLS. POSSIBLE ZONE LOSS AT 2454 AND AT BTM OF 2477'
		- 20:00	5.50	DRLIN1	16	E	P		HAUL WATER AND FILL MUD TANKS, RESERVE PIT AND RIG TANKS MIX LCM PILLS.
	20:00	- 0:00	4.00	DRLIN1	02	В	Р		DRLG F/2477 T/2557 , WOB 10K, RPM 65, TQ ON/OFF BTM 3/1K, SPM #2 78, 350 GPM , SPP ON/OFF BTM 890/ PSI, MUD MTR 58 RPM, ROP 25'/HR
8/20/2008	0:00	- 0:30	0.50	DRLIN1	02	В	P		DRLG F/2557 T/2561, WOB 10, RPM 60, TQ ON/OFF BTM 3/1, SPM #2 78, 350 GPM, SPP ON/OFF BTM 985/900, MUD MTR. 58 ROP 15' PER HR
	0:30	- 3:30	3.00	DRLIN1	04	D	Р		RUN OUT OF FLUID, HAUL WATER FOR VOLUME
	3:30	- 10:30	7.00	DRLIN1	02	В			DRLG F/22561 T/2746, WOB 10K, RPM 70, TQ ON/OFF BTM 3/1K, SPM #2 70, GPM 315, SPP ON/OFF BTM 675/650 PSI, MUD MTR 50 RPM, ROP 24.9/HR
	10:30	- 11:00	0.50	DRLIN1	04	D	Р		WORK PIPE WHILE WAITING ON WATER
		- 16:00	5.00	DRLIN1	05	Α	Р		POOH, CHANGE OUT MUD MTR, MOVE REAMERS IN BHA. HAD 30K OVER PULL AT 2450 WORK THRU AND DID NOT SEE IT AGAIN.
		- 19:00	3.00	DRLIN1	05	A	P		TIH WITH NEW BHA
		- 20:30	1.50	DRLIN1	03	E	X		WASH & REAAM TIGHT SPOTS @ 2450 & 2746
		- 0:00	3.50	DRLIN1	02	В	Р		DRLG F/2746 T/ 2780, WOB 10K, RPM 65, TQ ON OFF BTM 2/1, SPM #1 70, GPM 315, SPP ON/OFF 840/ 800, MUD MTR 50, ROP 25' PER HR
8/21/2008		- 0:30	0.50	DRLIN1	13	A	P		INSTALL ROTATING HEAD RUBBER
		- 3:00	2.50	DRLIN1	02	В	Р		DRLG F/2780 T2821 WOB 10K, RPM 70, TQ ON/OFF BTM 3/1, SPM #1 70, 315 GPM, SPP ON/OFF BTM 926/850, MUD MTR 50 RPM, STARTED AIR JAMMERS @ 01:30 W/250 CFM, INCREASED TO 700 CFM, NO RETURN
		- 5:30	2.50	DRLIN1	04	D	X		WAITING ON WATER, WORKING PIPE
	5:30	- 6:00	0.50	DRLIN1	02	В	Р		DRLG F/2821- 2840' WOB 10K, RPM 70, TQ ON/OFF BTM 3/1, SPM #1 70, 315 GPM, SPP ON/OFF BTM 926/850, MUD MTR 50 RPM, INCREASE TO 1000 CFM AND NO RETURNS.
		- 6:30	0.50	DRLIN1	04	D	Χ		SHUT DOWN PUMPS AND WORK PIPE 450 CFM
		- 7:00	0.50	DRLIN1	05	G	Р		BLEED AIR PRESSURE & PULL 6 STD PIPE
	7:00	- 10:00	3.00	DRLIN1	04	D	Р		TRIED TO GET RETURNS W/ 450, 700, 1000, 1600 CFMS. GOT AIR RETURNS NO FLUID, STAGE IN HOLE 3 STDS & REGAIN RETURNS W/ 1600 CFM & 135 PM WENT TO BOTTOM GO'CIRC W/ 450 GPM
		- 11:30	1.50	DRLIN1	02	В	P		DRLG F/ 2840 T/2865, WOB 5/10K, CFM 1250/1600, GPM 420/470, PUMP #2 60 SPM, M/N 145 RPM, RPM 70, SPP ON/OFF BTM 1340/650, TQ ON/OFF BTM 5/1
	11:30	- 12:00	0.50	DRLIN1	02	В	Р	ing pagamental and a second con-	ESTABLISH RETURNS W/1600 CFM, 10 SPM, THEN WENT TO 1300 CFM, 50 SPM= 425 GPM

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

Active Datum: Level)	RKB @	6,423.00ft	(above Mea	n Sea	UWI:	0/13/S/10/	E/20/0/N	IENE/6/PM/N/	1,142.00/E/0/0/0/0
Date	12.00	Time art-End	Duration (hr)	Phase	Code	e Subco de2	P/Ü	MD From (ft)	Operation
	12:00	- 0:00	12.00	DRLIN1	02	В	P		DRLG F/2840 T/3365, WOB 5/10, CFM 1200/1600, GPM 454/515, M/M 72/82 RPM, SPM #1 60, RPM70
8/22/2008	B 1862 - 1111	- 7:00	7.00	DRLIN1	02	<b>B</b>	P		DRLG F/3365 T/3713, WOB 10, CFM 900/1600, GPM 270, TOTAL GPM WITH AIR 400/454, PUMP #2 60 SPM, M/M 70, RPM 70, SPP ON/OFF 1200/ 800, TQ ON/OFF 5/1
		- 7:30	0.50	DRLIN1	06	Α	P		RIG SERVICE
		- 10:30	3.00	DRLIN1	02	В	<b>P</b>		DRLG F/3713-3840, WOB 10, CFM 900/1600, GPM 270, TOTAL GPM WITH AIR 400/454, PUMP #2 60 SPM, M/M 70, RPM 70, SPP ON/OFF 1200/ 800, TQ ON/OFF 5/1
	100	- 11:00	0.50	DRLIN1	04	F.	P		CIRC SAMPLES.
Lawan sa Kalunger Beer .		- 13:30	2.50	DRLIN1	09	C	P		PULL 2STDS HELD SAFETY MTG WITH GYRO HAND, RIG UP AND RUN GYRO ON SURVEY LINE AND SURVEY F/3650' @100' INTERVALS TO SURFACE
		- 17:00	3.50	DRLIN1	05	В	P		TRIP OUT OF HOLE L/D XPULSE, MONEL,2- REAMERS, MOTOR AND BIT. FOR CORING.
	17:00	- 18:30	1.50	DRLIN1	07	. <b>B</b>	Р		CHANGE OUT SAVER SUB ON TOP DRIVE F/ 4 1/2 XH TO 4 1/2 IF CHANGE OUT ELEVATORS FROM 4 1/2 - 5"
	18:30	- 20:30	2.00	DRLIN1	05	Α	P		PICK UP CORE BARREL & PRESSURE TEST SAME
	20:30	- 21:00	0.50	DRLIN1	05	Α	Р	The state of the s	RIG UP WEATHERFORD LAY DOWN MACHINE HELD SAFETY MEETING BEFORE PICKING UP 5" DP
	21:00	- 23:30	2,50	DRLIN1	05	Α	P		PICK UP 6 1/2 DC & 5" DP
een in when investor and his	23:30	- 0:00	0.50	DRLIN1	04	D	Р		BREAK CIRC. WITH 150 CFM & 950 PSI, STROKED PUMP 50 SPM
8/23/2008	0:00	- 0:30	0.50	DRLIN1	04	Α	P		FIL PIPE WITH AIR AND FLUID.
Tark Million Difference College	0:30	- 2:30	2.00	DRLIN1	05	Α	Ρ		PICK UP 5" DRILL PIPE
		- 3:00	0.50	DRLIN1	04	Α	P		DISPLACED HOLE WITH AIR, FOUND WASH OUT AND A TOTAL OF 3 BAD JTS.
tu ayan da tuti a da ee a faa d	3:00	- 4:00	1.00	DRLIN1	05	Α	S		LAYED DOWN 3 BAD JTS. AND REPLACE WITH 3 GOOD JTS.
	4:00	- 5:30	1.50	DRLIN1	04	Α	P		CIRCULATE HOLE WITH AERIATED MUD, GETTING PARCIAL RETURNS, RIG UP WIRELINE
	5:30	- 7:00	1.50	DRLIN1	80	H	Р		L/D 1 JT. DRILL PIPE & RIG UP WIRELINE TO RETRIEVE BIT INSERT, RUN BIT INSERT BACK IN HOLE
	7:00	- 8:00	1.00	DRLIN1	04	Α	Ρ		HELD SAFTEY MEETING W/ CORE HANDS, ESTABLISH RETURNS
	8:00	- 9:00	1.00	DRLIN1	08	Н	Р		CORE 24' PUMPING 750CFM @ 30 SPM W/ 430 PSI
	9:00	- 11:30	2.50	DRLIN1	08	H	S		ATTEMPT TO RETRIEVE 24' OF CORE W/ WIRELINE, ATEMPT FAILED, PUMP DOWN DRILL STRING & ATTEMPT TO RETRIEVE CORE
	11:30	- 14:30	3.00	DRLIN1	05	Α	S		AGAIN, ATTEMPT FAILED TRIP OUT OF HOLE W/ CORE BARREL AND
	14:30	- 15:30	1.00	DRLIN1	05	В	s		SAMPLE CLEAN OUT SHALE F/ TOP OF CORE BARREL,
	15:30	- 21:00	5.50	DRLIN1	05	<b>A</b>	Р		CHANGE REAL ROD & CHECK BIT TRIP IN HOLE TO DRILL NEXT CORE, LOOKING FOR A WASH IN DC'S & DP, WASH & REAM TIGHT SPOTS BETWEEN 2450 & 2900
	21:00	- 23:30	2.50	DRLIN1	04	D	P		TRY UNLOADING HOLE WITH AIR & MUD STRING PRESSURED UP,

OCT 2 8 2008

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298 **Event: DRILLING** Start Date: 7/30/2008

End Date:

Spud Date: 8/14/2008

Active Datum: RKB @6 423 00ft (above Mean Sea LIWI: 0/13/S/10/E/20/0/NENE/6/PM/N/1 142 00/E/0/0/0/0

Active Datum: RKB @6,423.00ft (above Mean Sea Level)						UWI: 0/13/S/10/E/20/0/NENE/6/PM/N/1,142.00/E/0/0/0/0							
Date		Time irt-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From Operation (ft)					
	23:30	- 0:00	0.50	DRLIN1	10	С	Р	RIG UP WIRELINE TO PULL CORE BARREL, TOP OF CORE BARREL WAS COVERED UP					
8/24/2008		- 2:30	2.50	DRLIN1	05	В	Р	TOOH, PLUG CORE BARREL,					
	2:30	- 5:00	2,50	DRLIN1	05	В	Р	CORE BARREL PLUGGED WITH LCM, CLEAN OUT INTER BARREL, RUN ACTIVE SYSTEM OVER SHAKERS TO CLEAN MUD					
		- 6:00	1.00	DRLIN1	05	Α	Р	TRIP IN HOLE WITH BHA & 4 STDS. OF DRILL PIPE, BREAK CIRCULATION					
		- 6:30	0.50	DRLIN1	06	Α	P	RIG SERVICE					
State of the second field SM		- 11:30	5.00	DRLIN1	05	<b>A</b>	P	FINISH TRIP IN HOLE, REAM LAST 60' TO BOTTOM					
		- 12:00 - 13:30	0.50	DRLIN1 DRLIN1	02	A H	P P	DRILL F/ 3,864' T/ 3,920' 2-5K WOB, 1600 CFM & 20 SPM #1 PUMP = 336 GPM					
해임 (4.51) 라마		- 15:00	1.50 1.50	DRLIN1	08 08	n Hais	r p <b>R</b> NSS	RUN IN HOLE W/ WIRELINE, RETRIEVE BIT INSERT & REPLACE W/ CORE BARREL ESTABLISH RETURNS. CORE #2 F/ 3.920' T/					
			1.50	DIVERNI				3,944' 7K WOB, 50 RPM'S PUMPING 1300 CFM 8 10 SPM = 245 GPM					
	15:00	- 16:30	1.50	DRLIN1	08	Н	P	RUN IN HOLE WITH WIRELINE, RETRIEVE CORE BARREL RECOVERED 24' & REPLACE WITH NEW ONE					
	16:30	- 18:00	1.50	DRLIN1	80	H	P	ESTABLISH RETURNS, CORE #3 F/ 3,944' T/ 3,968' 7K WOB, 50 RPM'S PUMPING 1300 CFM 8 10 SPM = 245 GPM					
ak il terti ing projet Makayan ni g	18:00	- 20:00	2.00	DRLIN1	08	Н	P	RETRIEVE CORE & RECOVERED 13.7', RUN NEW BARREL IN HOLE					
	20:00	- 21:00	1.00	DRLIN1	08	Н	P	BRK CIRC. & CORE #4 F/ 3965 T/ 3973 WOB 10F RPM 50 - 60, 1050 CFM, 30 SPM,780 PSI, 287 GPM CORE BARREL JAMMED					
		- 22:30	1.50	DRLIN1	80	Н	Р	R/U WIRELINE & RETRIEVE CORE, RECOVERED 5.5', RUN CORE BARREL IN HOLE					
		- 0:00	1.50	DRLIN1	08	H	P	BRK CIRC. & CORE F/ 3973 T/3978 WOB 4/10K, RPM 50, 1050 CFM, 30 SPM, 295 GPM,					
8/25/2008		- 1:30 - 3:00	1.50	DRLIN1	08	H	P P	CORING #5 F/3973 T/3997 WOB 4-8K RPM 50 CFM 1000 30 SPM PSI 570, GPM 285,					
		- 3.00	1.50	DRLIN1	08			R/U WIRELINÉ RETRIEVE CORE BARREL, RECOVERED 11', 45%, RUN CORE BARREL BACK IN HOLE					
n in die hour tout an te		- 4:30	1.50	DRLIN1	08	H ·	P Hartweet	CORING #6 F/3997-4020' WOB 4-8K RPM 50 CFI 800 25 SPM PSI 550, GPM 235, 50% RETURNS					
	4:30	- 6:30	2.00	DRLIN1	08	H	<b>P</b>	R/U WIRELINE RETRIEVE CORE BARREL, RECOVERED 20.3 ', 88 % RUN CORE BARREL BACK IN HOLE					
		- 8:30	2.00	DRLIN1	80	Н	Р	CORING #7 F/4020' T/4035, WOB 4-8K, RPM 50, DRILL WITH WATER ONLY 30 SPM, 135 GPM					
		- 10:00	1.50	DRLIN1	80	Н	P	R/U WIRELINE RETRIEVE CORE BARREL, RECOVERED 13.2', 88%					
		- 13:00 - 14:00	3.00	DRLIN1	08 08	ዘ /የ <b>ል</b> ውርን	P П <del>р</del> обилен	CORE #8 F/4035 T/4052', WOB 5-12, RPM 40, SPM 40/45 SPM, 179/202 GPM R/U WIRELINE RETRIEVE CORE					
		- 14:00 - 18:00	1.00 4.00	DRLIN1 DRLIN1	08 04	H D	P P	BARREL, RECOVERED 17.6, 103% GOT RETURNS W/1600 CFM. 10 SPM. FILLED					
		- 18:30	0.50	DRLIN1	08	20 <b>H</b> (37)		ALL SURFACE TANKS & RESERVE PIT CORE #9 F/4052 T/4070', WOB 7-8K, RPM 49,					
		- 20:00	1.50	DRLIN1	08	H	Р	PSI 27, SPM 40 R/U WIRELINE RETRIEVE CORE					
	20:00	- 21:00	1.00	DRLIN1	08	(CH) (C)	P	BARREL,RECOVERED 13.8, 76% CORE #10, F/4070 T/4085 WOB 5-13, PSI 27/500					
<u> 226 2 14 636</u>						<u>Alieladiak</u>	DEO!	TQ 2/1, 45 RPM					

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298 Event: DRILLING Start Date: 7/30/2008

End Date:

Spud Date: 8/14/2008

Active Datum: RKB @6 423 00ft (above Mean Sea LIMI: 0/13/9/10/E/20/0/NENE/6/PM/N/1 142 00/E/0/0/0/0

Active Datum: RKB @6,423.00ft (above Mean Sea Level)						UWI: 0/13/S/10/E/20/0/NENE/6/PM/N/1,142.00/E/0/0/0/0							
Date	10.10	Time irt-End	Duration (hr)	Phase	Code	Subco de2	P/U MD From (ft)	Operation					
		- 22:30	1.50	DRLIN1	08	H	P	R/U WIRELINE RETRIEVE CORE BARREL, RECOVERED 0.0' 0%					
rental non light novel that have again	22:30	- 0:00	1.50	DRLIN1	05	Α	P	TOOH FOR CORE BIT					
8/26/2008	0:00	- 1:30	1.50	DRLIN1	05	Α	P	TOOH FOR CORE BIT, CHANGE OUT CORE BITS, INSTALL INSERT BIT TO KEEP BARREL CLEAN					
	1:30	- 4:00	2.50	DRLIN1	05	Α	P	TIH TO CORE, HIT BRIDGE @ 2275					
	4:00	- 6:00	2.00	DRLIN1	03	Α	X	WASH & REAM F/2275 T/29					
and the gard flag factor of the	6:00	- 8:00	2.00	DRLIN1	05	Α	P	FINISH TRIP IN HOLE REAM 60' TO BTM					
	8:00	- 8:30	0.50	DRLIN1	04	D	i <b>p</b> rograma	GOT RETURNS W/1800 CFM & 10 SPM					
S 7 VINC 1 1 - 7, 1 V M		- 10:00	1.50	DRLIN1	08	Н	<b>P</b>	R/U WIRELINE RETRIEVE INSERT BIT & RUN CORE BARREL					
		- 11:00	1.00	DRLIN1	80	H	<b>P</b>	CORE #11 F/4066 T/4076 WOB 12, RPM 50 SPM 50					
		- 11:30	0.50	DRLIN1	03	Α	P	BACK REAM 15' TO PULL CORE BARREL					
		- 13:30	2.00	DRLIN1	08	Н		R/U WIRELINE, PULL CORE #11 RECOVERED 3 SANDSTONE					
ruffi, ski u kusis		- 19:00	5.50	DRLIN1	02	A regression	P magalakhi washada shi a	DRLG F/ 4076 T/ 4160 WOB 9 CFM 1100, GPM 350, PUMP#1 40 SPM, ON/OFF BTM 600/330					
	19.00	- 20:00	1.00	DRLIN1	04	Α		CIRC & CONDITION HOLE TO LAY DOWN 5" R/L LAYDOWN MACHINE HELD SAFETY MEETING WEATHERFORD					
	20:00	- 22:30	2.50	DRLIN1	05	В	2942) 1944 (1910) 1944 	LAY DOWN 5" DP FRIST TO STD TIGHT					
	22:30	- 23:00	0.50	DRLIN1	05	В	( <b>P</b> -10	PULL ROTATING HEAD					
		- 0:00	1.00	DRLIN1	05	В	Destaca at incas incas an incas.	LAY DOWN BHA					
8/27/2008		- 1:30	1.50	DRLIN1	05	Α		LAY DOWN DRILL 5" PIPE & COLLARS					
		- 2:00	0.50	DRLIN1	05	Α	80	RIG DOWN LAWDOWN MACHINE					
	2:00	- 4:00	2.00	DRLIN1	80	Α	P	R/U HALCO LOGGERS, HELD SAFETY MEETING, LOGGING, HIT BRIDGE @ 1960, FLUID LEVEL @ 1600'					
The state of the second second	4:00	- 5:30	1.50	DRLIN1	08	Α	X	HALCO PULL OUT OF HOLE , RIG DOWN					
	5:30	- 7:00	1.50	DRLIN1	05	Α	S	CHANGE OUT SAVER SUB ON TOP DRIVE,					
		- 12:00	5.00	DRLIN1	05	F	P	Load out 5" coring DP. Strap and pickup 27 joints DP					
		- 12:30	0.50	DRLIN1	06	Α	₽	Rig Service					
rasa arang areng r		- 14:30	2.00	DRLIN1	07	В	and the second s	Rig repair - hydraulic hose on lift cylinder fro grabber on top drive					
	14:30	- 22:00	7.50	DRLIN1	03	Α		Make up bit, bit sub, 1 DC and TIH w/ HWDP & DF tagged bridge at 1960'. Ream through bridges at 1960', 2027', 2276'-2858'					
		- 22:30	0.50	DRLIN1	05	F	X	TIH, tagged ledge/bridge at 3331'					
		- 0:00	1.50	DRLIN1	03	Α	X	Wash and ream 3331' - 3525' w/ 1400 scfm air and 90 gpm water					
8/28/2008	4:00	- 7:00	3.00	DRLIN1	04	Α	X	Circulate and condition hole for logs at 4160					
	7:00	- 7:30	0.50	DRLIN1	80	F	P	Rig up Weatherford for slim hole logging, tool and log through DP. Loggers TD 4168'. Rig TD 4160'. No correction were made					
u tarvet et kultin 1900 Van Nigerellijk 1900		- 10:00	2.50	DRLIN1	08	F		Log well w/ Weatherford's slim hole Gamma Ray and collar locator log through DP. Loggers TD 4168'. Rig TD 4160'. No correction were made					
	Carlotte Control	- 13:30	3.50	DRLIN1	05	C		TOOH w/ bit #6, LD 6.25" DC, bit & bit sub					
	10.05	- 4:00		DRLIN1	03	E	X	Wash and ream 3331' - 4160', WOB 10K, AIR = 1400 SCFM, GPM = 90, PUMP #1 = 20 SPM, PUMP #2 = 0 SPM, 40 RPM, PRESS ON - OFF BTM = 350 PSI, TORQ ON - OFF BTM =5K - 12k					
	·						The first transfer of the	MUD WT = 8.4, VIS = 27					

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Active Datum: Level)	RKB @	6,423.00ft (	above Me	an Sea	UWI: 0/13/S/10/E/20/0/NENE/6/PM/N/1,142.00/E/0/0/0/0						
Date		Time irt-End	Duration	Phase	Code	Subco de2	P/U	MD From Operation			
· · · · · · · · · · · · · · · · · · ·	The state of the s	- 14:30	(hr) 1.00	DRLIN1	05	C C	X	(ft)   TIH open ended for plugging operations, tagged bridge at 1960'			
	14:30	- 15:00	0.50	DRLIN1	05	c	X	Hit bridge at 1960, tried to work through, unsuccessful, pickup and install rotating head			
and a program of the Child		- 22:30	7.50	DRLIN1	03	E	Χ	Wash and ream through bridges at 1960, 2020', 2323', 2430', 2510', and several others			
	22:30	- 23:30	1.00	DRLIN1	05	F	Χ	TIH 3100' - 3400'			
	23:30	- 23:30	0.00	DRLIN1	03	Ε	X	Continue to wash and ream through tight spot from 3400' - 3420'			
8/29/2008	0:00	- 1:30	1.50	DRLIN1	03		X	Wash and ream 3400' - 3600', WOB 10K, AIR = 1400 SCFM, GPM = 90, PUMP #1 = 20 SPM, PUMP #2 = 0 SPM, 50 RPM, PRESS ON - OFF BTM = 350 PSI , TORQ ON - OFF BTM = 5K - 8K, MUD WT = 8.4, VIS = 27			
en a transfer to the	1:30	- 2:30	1.00	DRLIN1	04	Α	Χ	Circulate and condition hole w/ 1500 scfm airand 90 GPM water			
	2:30	- 3:30	1.00	DRLIN1	04	Α	Χ	HSM w/ Superior Cementers and rig up			
	3:30	- 4:30	1.00	DRLIN1	15	E	Р	Mix and pump 175 sack class "G" cement (29.2 Bbls) balance formation isolation plug from 3600' - 3300'			
	4:30	- 5:00	0.50	DRLIN1	05	С	Р	TOOH 3 stands to 3309'			
The Same William (1994) to the	5:00	- 6:30	1.50	DRLIN1	04	Α	Р	Circulate at 3309' to clear excess cement from wellbore			
	6:30	- 7:00	0.50	DRLIN1	15	Ė	P	Mix and pump 170 sack class "G" cement (28.4 Bbls) balance formation isolation plug from 3300' - 3000'			
and the second section of	7:00	- 7:30	0.50	DRLIN1	05	С	P	TOOH 8 stands to 2552'			
	7:30	- 9:00	1.50	DRLIN1	04	Ā	Р	Circulate and condition abd dump 5 gallons polyswell down drill pipe			
	9:00	- 9:30	0.50	DRLIN1	15	Ε	Р	Mix and pump 50 sack (18 bbls) Thix-O-Tropic cement to try healing up loss circulation zone			
		- 14:30	5.00	DRLIN1	04	Α	P	TOOH 4 stands to get above cement and circulate w/ 1200 scfm air and 90 GPM water			
		- 15:00	0.50	DRLIN1	05	С	P	TIH to 2615' and did not tag any cement in well bore, pulled back to 2488'			
		- 17:00	2.00	DRLIN1	04	Α	Р	Circulate w/ 1200 scfm air for 1 hour after circulate was acheived			
		- 17:30	0.50	DRLIN1	15	<b>E</b>	P	Mix and pump 50 sacks (18 bbls) Thix-O-Tropic cement to try healing loss circulation zone			
		- 18:00	0.50	DRLIN1	05	С	r Para	TOOH 6 stands to get above cement			
MAI BEAUNDANCE LEAST		- 0:00	6.00	DRLIN1	12	В	Р	Wait on cement to set at 1966'			
8/30/2008		- 1:00	1.00	DRLIN1	12	В	X	Work pipe 1891' - 1986' while waiting on cement to set			
ili. Street en en op die de oorden	1:00	- 1:30	0.50	DRLIN1	05	С	Χ	TIH, tagged at 2506'			
	1:30	- 3:30	2.00	DRLIN1	04	Α	X	Blow hole dry w/ 1200 scfm air at 2488'			
	3:30	- 4:00	0.50	DRLIN1	15	A	X	Mix and pump 100 sacks class "G" w/ .25 #/sk Superflake and 2% CaCl2, yeild 1.15, Water 5.0 gallons per sack			
	4:00	- 4:30	0.50	DRLIN1	05	С	X	TOOH 6 stands to 1986			
	4:30	- 7:00	2.50	DRLIN1	12	В	X	Work pipe 1891' - 1986' while waiting on cement to set			
		- 9:30	2.50	DRLIN1	05	С	X	TIH tagged at 2506', had to use air from 2320' - 2506'			
getter in the large of the season		- 10:00	0.50	DRLIN1	04	A	X	Circulate while rigging down Superior cementing services			
	10:00	- 11:30	1.50	DRLIN1	05	С	X	TOOH for directional tools. Laid down bottom joint of DP, pin and shoulder was well worn from working through bridges			

## **Operation Summary Report**

Well: BLACKHAWK A-5H

 Project: UTAH
 Site: CARBON
 Rig Name No: H&P 298/298

 Event: DRILLING
 Start Date: 7/30/2008
 End Date: Spud Date: 8/14/2008

Active Datum: RKB @6,423.00ft (above Mean Sea UWI: 0/13/S/10/E/20/0/NENE/6/PM/N/1,142.00/E/0/0/0/0

Active Datum: Level)	KKD @	5,423.0011	(above ivie	an Sea	UWI: 0/13/S/10/E/20/0/NENE/6/PM/N/1,142.00/E/0/0/0/0							
Date		Fime -	Duration	Phase	Code	Subco	P/U	MD From Operation				
, and a second		art-End	(hr)		1	de2		(ft)				
		- 13:00	1.50	DRLIN1	06	D	Р	Cut drilling line				
seu di unio d'Anteloni da		- 13:30	0.50	DRLIN1	06	Α	Р	Rig Service				
		- 14:30	1.00	DRLIN1	05	Α	P	Lay down stand drill collars				
ografija iz seri, do 1994		- 19:00	4.50	DRLIN1	05	Α	Р	Pickup and make up Weatherfords directional tools and TIH				
	off facility of a	- 19:30	0.50	DRLIN1	05	Α	P	Install rotating head				
en en van de en en en en		- 20:00	0.50	DRLIN1	05	Α	Р	TIH, tagged bridge at 2200'				
		- 0:00	4.00	DRLIN1	03		P	Wash and ream 2200' - 2506', WOB 5k - 10K, AIR = 1000 SCFM, GPM = 265, PUMP #1 = 82 SPM, PUMP #2 = 0 SPM, RPM = 40, PRESS ON - OFF BTM = 400 PSI , TORQ ON - OFF BTM =1K - 6K, MUD WT = 8.4, VIS = 27				
8/31/2008	0:00	- 0:30	0.50	DRLIN1	05	Н	X	Bit plugged, TOOH to un-plug				
	Section 14 Section	- 1:00	0.50	DRLIN1	05	Н	Χ	Pull rotating head				
	1:00	- 1:30	0.50	DRLIN1	05	Н	X	TOOH to monel DC				
		- 3:30	2.00	DRLIN1	05	H	X	Un-plug bit and change out motors and scribe. Bit full of cement and shale				
	3:30	- 4:30	1.00	DRLIN1	05	Н	Х	TIH				
	4:30	- 5:00	0.50	DRLIN1	05	H	Χ	Install rotating head				
		- 14:00	9.00	DRLIN1	03	E	X	Wash and ream 1836' - 2060', WOB 5k - 10K, AIR = 1000 SCFM, GPM = 180, PUMP #1 = 50 SPM, PUMP #2 = 0 SPM, RPM = 40, PRESS ON - OFF BTM = 350 PSI, TORQ ON - OFF BTM =1K - 4K, MUD WT = 8.4, VIS = 27  Tagged cement at 2697' - 3044'. Fell free from plug and tagged at 3700'				
		- 16:00	2.00	DRLIN1	05	С	S	TOOH w/ directional tools				
		- 19:30	3.50	DRLIN1	05	С	S	TIH open ended. Picked up bad joint from previous plugging job for bottom joint. Tagged at 3700' and fell through, went in to 3723', w/ 30k set down weight, it was sliding slowly down.				
	19:30	- 20:00	0.50	DRLIN1	04	Α	S	Attempted to break circulation, pipe pressured up.				
	30·00	- 20:30	0.50	DDLINA				Plugged pipe, could not break loose.				
			0.50	DRLIN1	0.5							
	20.30	- 21:30	1.00	DRLIN1	05	С	S	TOOH to un-plug pipe. Un-plug bottom joint of DP, had about 10' cement and shale in pipe. Pull rotating head				
a e ili ili 1991 y afrada ili bijiwa b	21:30	- 22:00	0.50	DRLIN1	05	С	S	Clean rig floor				
	22:00	- 23:30	1.50	DRLIN1	05	С	S	TIH to 3700				
u edito keritire i Prove everol		- 0:00	0.50	DRLIN1	04	Α	S	Break circulation w/ air and circulate while rigging up cementers. Takes about 45 minutes to acheive circulation after sending air down hole				
9/1/2008	0:00	- 1:30	1.50	DRLIN1	04	Α	X	Circulate while rigging up cementers				
etar serie J7747 fablor	1:30	- 2:30	1.00	DRLIN1	15	Α	Χ	Pump 175 sacks plug at 3714'				
		- 3:30	1.00	DRLIN1	04		X	TOOH 6 stands and wash through pipe and				
								continue to pull total of 14 stands				
The state of the s	3:30	- 7:30	4.00	DRLIN1	12	В	Р	Wait on cement plug to set				
	7:30		2.00	DRLIN1	05	C	P	TIH to tag cement. Driller created a birds nest in drilling line				
	9:30	- 10:00	0.50	DRLIN1	06	Α	S	Rig Service				
	10:00	- 12:00	2.00	DRLIN1	07	A	S	Perform JSA do to drum back lash. Set top drive in slips and came down slowly, straighten drill line and then came uo to dock top drive in upper docking point				
u u viva u ne posti ke ipostosno.	12:00	- 12:30	0.50	DRLIN1	07	Α	S	Stand 1 stand back in derrick to assist in calibrating top drive and draw works				

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLIN			Start Da			End Date:	Spud Date: 8/14/2008			
Active Datum: R Level)	KB @	5,423.00ft	(above Mea	an Sea	UWI: 0	/13/S/10	10/E/20/0/NENE/6/PM/N/1,142.00/E/0/0/0/0			
Date		ime irt-End	Duration (hr)	Phase	Code	Subco de2	P/U MD From	m Operation		
		- 14:30	2.00	DRLIN1	03	E	P	Continue to clean out to plug, tagged at 3246'		
	14:30	- 15:00	0.50	DRLIN1	15	E	P	Pump 170 sack cement plug at 3246'		
	15:00	- 17:30	2.50	DRLIN1	05	Α	Р	TOOH for directional tools		
	17:30	- 18:00	0.50	DRLIN1	05	Α	P	Pull rotating head		
		- 18:30	0.50	DRLIN1	05	Α	P	Inspect and lay down single joint of drill pipe and pu extra bolts in flow meter		
		- 20:00	1,50	DRLIN1	05	Α	. <b>P</b> 12 11 11 11 11 11 11 11 11 11 11 11 11 1	Make up bit, scribe mud motor, set MWD tool and TIH w/ directional tools		
		- 20:30	0.50	DRLIN1	05	Α	P	Install rotating head		
医囊体 解作 化二氯甲酰甲酰胺 化二基磺基	· 1877	- 22:00	1.50	DRLIN1	05	Α	P	TIH, tagged w/ 20k at 2659'.		
., ., .,		- 0:00	2.00	DRLIN1	02	<b>E</b>	<b>P</b>	Drill cemet 2559' - 2865', WOB 5k - 8K, AIR = 1000 SCFM, GPM = 320, PUMP #1 = 0 SPM, PUMP #2 = 70 SPM, RPM = 40, PRESS ON - OFF BTM = 450 PSI, TORQ ON - OFF BTM =3K - 2K, MUD WT = 8.3, VIS = 28, Footage = 206', FPH = 103		
9/2/2008		- 1:30	1.50	DRLIN1	02	G	P	Drill cemet 2865' - 2992', WOB 5k - 8K, AIR = 1000 SCFM, GPM = 320, PUMP #1 = 0 SPM, PUMP #2 = 70 SPM, RPM = 40, PRESS ON - OFF BTM = 450 PSI, TORQ ON - OFF BTM =3K - 2K, MUD WT = 8.3, VIS = 28, Footage = 127', FPH = 84.67		
		- 2:30	1.00	DRLIN1	02	G	P	Work pipe to get good MTF		
	2:30	- 13:30	11.00	DRLIN1	02	D	P	Time Drill 2992' - 3045', WOB 2k - 3K, AIR = 1000 SCFM or 153 GPM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 0, MOTOR RPN = 132, PRESS ON - OFF BTM = 450 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.3, VIS = 28, Footage = 53', FPH = 4.8		
	13:30	- 14:00	0.50	DRLIN1	06	Α	Р	Rig Service		
	14:00	- 0:00	10.00	DREIN1	02	D	Р	Time Drilling and sliding 3045' - 3099', WOB 5k - 10K, AIR = 1000 - 1100 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 0, MOTOR RPM = 132, PRESS ON - OFF BTM = 309 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.7, VIS = 34, Footage = 53', FPH = 5.4		
9/3/2008	0:00	- 6:30	6.50	DRLIN1	02	D	Р	Slide Drilling 3099' - 3205', WOB 5K - 9K, AIR = 1000 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 0, MOTOR RPM = 132, PRESS ON - OFF BTM = 356 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.5, VIS = 34, Footage = 106', FPH = 16.3		
	6:30	- 8:30	2.00	DRLIN1	02	Ď	P	Rotate Drilling 3205' - 3265', WOB 5K - 9K, AIR = 1000 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 40, MOTOR RPM = 132, PRESS ON - OFF BTM = 360 PSI, TORQ ON/OFF BTM =2-3K, MUD WT = 8.5, VIS = 34, Footage = 106', FPH = 16.3		
ero una gueral	8:30	- 9:00	0.50	DRLIN1	02	D		Slide Drilling 3265' - 3297', WOB 5K - 9K, AIR = 1000 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 0, MOTOR RPM = 132, PRESS ON - OFF BTM = 400 PSI , TORQ ON/OFF BTM =0K, MUD WT = 8.5, VIS = 34, Footage = 32', FPH = 64		
	9:00	- 11:00	2.00	DRLIN1	02	D	<b>P</b>	Rotate Drilling 3297' - 3391', WOB 5K - 9K, AIR = 1000 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 40, MOTOR RPM = 132, PRESS ON - OFF BTM = 360 PSI, TORQ ON/OFF BTM =2-3K, MUD WT = 8.5, VIS = 34, Footage = 94', FPH = 47		

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Dat						/2008	End Da	ate: Spud Date: 8/14/2008
Active Datum: Level)	: RKB @6	,423.00ft	(above Mea	n Sea	UWI: 0	)/13/S/10	)/E/20/0/N	NENE/6/PM/N/1,142.00/E/0/0/0/0
Date		ime t-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From Operation (ft)
	11:00	- 11:30	0.50	DRLIN1	02	D D	P	Slide Drilling 3391' - 3405', WOB 5K - 9K, AIR = 1000 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 0, MOTOR RPM = 132, PRESS ON - OFF BTM = 400 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.5, VIS = 34, Footage = 14', FPH = 28
	11:30	- 13:30	2.00	DRLIN1	02	D	P	Rotate Drilling 3405' - 3486', WOB 3K - 8K, AIR = 1000 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 40, MOTOR RPM = 132, PRESS ON - OFF BTM = 360 PSI, TORQ ON/OFF BTM = 2K - 4k, MUD WT = 8.5, VIS = 34, Footage = 81', FPH = 40.5
		- 14:00	0.50	DRLIN1	02	D	p	Slide Drilling 3486' - 3508', WOB 5K - 9K, AIR = 1000 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 0, MOTOR RPM = 132, PRESS ON - OFF BTM = 400 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 22', FPH = 44
		- 15:30	1.50	DRLIN1	02	D	P	Rotate Drilling 3508' - 3549', WOB 3K - 8K, AIR = 1100 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 40, MOTOR RPM = 132, PRESS ON - OFF BTM = 396 PSI, TORQ ON/OFF BTM =2-4K, MUD WT = 8.6, VIS = 34, Footage = 41', FPH = 27.3
	15:30	- 17:00	1.50	DRLIN1	02	Ď	P	Slide Drilling 3549' - 3612', WOB 5-9K, AIR = 1200 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 0, MOTOR RPM = 132, PRESS ON - OFF BTM = 400 PSI , TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 63', FPH = 42
All of the Substitute S	17:00	- 17:30	0.50	DRLIN1	06	Α	Р	Rig Service
	17:30	- 18:00	0.50	DRLIN1	02	<b>D</b>	P	Rotate Drilling 3612' - 3644', WOB 3K - 9K, AIR = 1200 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 40, MOTOR RPM = 132, PRESS ON - OFF BTM = 494-396 PSI, TORO ON/OFF BTM =2-4K, MUD WT = 8.6, VIS = 34, Footage = 32', FPH = 64
in , ind in familia en	18:00	- 19:00	1.00	DRLIN1	02	D	P	Slide Drilling 3644' - 3676', WOB 20K, AIR = 1200 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 0, MOTOR RPM = 132, PRESS ON - OFF BTM = 353-297 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 31', FPH = 31
	19:00	- 20:30	1.50	DRLIN1	02	Ď	P	Rotate Drilling 3676' - 3739', WOB 6K - 15K, AIR = 1200 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 40, MOTOR RPM = 132, PRESS ON - OFF BTM = 396-342 PSI, TORG ON/OFF BTM =2-4K, MUD WT = 8.6, VIS = 34, Footage = 63', FPH = 42
e and a common feet and a control of the control of	20:30	- 22:00	1.50	DRLIN1	02	D	P	Slide Drilling 3739' - 3788', WOB 6-10K, AIR = 1200 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 : 75 SPM, RPM = 0, MOTOR RPM = 132, PRESS ON - OFF BTM = 353-297 PSI , TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 49', FPH = 32.6
	22:00	- 23:00	1.00	DRLIN1	02	D	P	Rotate Drilling 3788' - 3833', WOB 6-15K, AIR = 1200 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 40, MOTOR RPM = 132, PRESS ON - OFF BTM = 430-344 PSI, TORO ON/OFF BTM =2-4K, MUD WT = 8.6, VIS = 34, Footage = 63', FPH = 42
						0.00	. V V V	Victor and Victor

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

ctive Datum:	RKB @6,423	3.00ft (above Mea	n Sea	UWI: 0/	13/S/10/	E/20/0/NENE/6/PM	Spud Date: 8/14/2008 1/N/1,142.00/E/0/0/0/0
evel)	-						
Date	Time Start-Ei		Phase	Code	Subco de2	P/U MD From	n Operation
	23:00 - 0	AND THE PROPERTY OF A PARTIE OF THE PARTY OF	DRLIN1	02	D	P	Slide Drilling 3833' - 3845', WOB 20K, AIR = 1200 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 0, MOTOR RPM = 132, PRESS ON - OFF BTM = 396-350 PSI , TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 12', FPH = 12
9/4/2008	0:00 - 5		DRLIN1	02	D	P	Slide Drilling 3845' - 3967', WOB 5-15K, AIR = 1200 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 : 75 SPM, RPM = 0, MOTOR RPM = 145, PRESS ON - OFF BTM = 396-350 PSI , TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 122', FPH = 24.4
	5:00 - 6	:30 1.50	DRLIN1	04	С	P	Circulate bottoms up
12.11.11.11.11.11.11.11	6:30 - 7	:30 1.00	DRLIN1	05	Α	Р	TOOH to 3967' - 2951' (10 stands)
	7:30 - 1:	3:00 5.50	DRLIN1	08	É	Principal Control	Run Gamma Ray log from 2985' - 3280'
	13:00 - 18		DRLIN1	05	Α	Р	TOOH, pull rotating head
	15:30 - 18		DRLIN1	05	Α		Change BHA. L/D NMDC, Gamma Ray, break bit
	18:00 - 18		DRLIN1	06	Α	P	Rig Service
	18:30 - 0		DRLIN1	05	Α		Make up bit, adjust bend in motor from 1.83 to 2.12 and scribe same. Pickup 3 DC and rack in derrick, TIH and pickup 6 DC. Install rotating head.
9/5/2008	0:00 - 1	:30 1.50	DRLIN1	05	Α	Р	TIH, pickup total of 9 DC and install rotating head
	1:30 - 4	3.00	DRLIN1	04	D		Fill pipe and break circulation, had to increase air to 1600 scfm. As soon as we started getting circulation one of the air compressors went down
e Sine e El Nel Pier intel	4:30 - 9	:00 4.50	DRLIN1	03	E	S	Wash and ream 20' to bottom. Continue to work toward bottom w/ 1000 scfm air and 105 gpm. Attempt to slide at 3967', unseccessful, wait on ruch to change out compressors
	9:00 - 1	1:30 2.50	DRLIN1	02	D	P	Slide Drilling 3967' - 4011', WOB 5-15K, AIR = 160' SCFM, GPM = 225, PUMP #1 = 0 SPM, PUMP #2 50 SPM, RPM = 0, MOTOR RPM = 117, PRESS ON - OFF BTM = 268 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 44', FPH = 17.6
e fil et ette kansse kilone eksel	11:30 - 12	2:00 0.50	DRLIN1	02	D	P	Rotate Drilling 4011' - 4018', WOB 20K - 25K, AIR 1600 SCFM, GPM = 225, PUMP #1 = 0 SPM, PUMP #2 = 50 SPM, RPM = 40, MOTOR RPM = 117, PRESS ON-OFF BTM = 550-488 PSI, TORQ ON/OFF BTM =6-2K, MUD WT = 8.5, VIS = 35, Footage = 7', FPH = 14
	12:00 - 1:	3:00 1.00	DRLIN1	02	D	P	Slide Drilling 4018' - 4020', WOB 5-65K, AIR = 1200-1600 SCFM, GPM = 225-292, PUMP #1 = 0 SPM, PUMP #2 = 50-65 SPM, RPM = 0, MOTOR RPM = 133, PRESS ON - OFF BTM = 4/4-268 PSI TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 25 Englage 4' EPH = 4
	13:00 - 1;	3:30 0.50	DRLIN1	02	D	P	35, Footage = 4', FPH = 4  Rotate Drilling 4020' - 4028', WOB 25K - 75K, AIR 1200 SCFM, GPM = 292, PUMP #1 = 0 SPM, PUMP #2 = 65-75 SPM, RPM = 35, MOTOR RPM 133, PRESS ON-OFF BTM = 488-404 PSI, TORQ ON/OFF BTM =9-2K, MUD WT = 8.5, VIS = 35, Footage = 8', FPH = 16. Hard spot would not slide w/ 75k WOB
	13:30 - 14	4:00 0.50	DRLIN1	09	D		Circulate and directional survey



# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

<del></del>	NG			ite. 7/30	72000	End Date.	Spud Date: 6/14/2006
Active Datum: Level)	ctive Datum: RKB @6,423.00ft (above Mear evel)			UWI: 0	)/13/S/10	/E/20/0/NENE/6/PM/N/	//N/1,142.00/E/0/0/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U MD From (ft)	Operation
(A) (1995)	14:00 - 22:00	8.00	DRLIN1	02	D	P	Slide Drilling 4028' - 4082', WOB 5-70K, AIR = 1000 SCFM, GPM = 342, PUMP #1 = 0 SPM, PUMP #2 = 80 SPM, RPM = 0, MOTOR RPM = 138, PRESS ON - OFF BTM = 460-382 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 54', FPH = 6.75
	22:00 - 0:00	2.00	DRLIN1	04	С	Р	Circulate hole prior to trip
9/6/2008	0:00 - 4:00	4.00	DRLIN1	05	Α	S	TOOH, pull rotating head, LD NMDC and break bit
	4:00 - 4:30	0.50	DRLIN1	05	Α	S	Monitor well, gas bubble excaping and let it vent
	4:30 - 5:00	0.50	DRLIN1	05	Α	S	L/D Mud motor and NMDC, set MWD tools in v-door
	5:00 - 20:30	15.50	DRLIN1	12	Ε	S	Wait on directional tools
	20:30 - 23:00	2.50	DRLIN1	05	Á	P	Pickup mud motor w/ 2.6 degree bend make up bit re-run #7, make up MWD tools and scribe, install MWD survey tool, pickup flex NMDC and make up
o da Assar a tea Mitte	23:00 - 23:30	0.50	DRLIN1	07	Α	S an≟alan am an satan al	Repair hose on ST-80
9/7/2008	23:30 - 0:00 0:00 - 3:00	0.50 3.00	DRLIN1 DRLIN1	05 05	A A	P P	TIH slow due to 2.6 bend hanging up on wall TIH, slow due to bit hanging up on wall, tagged 40' fill
到。 1750年1月25日	3:00 - 4:00	1.00	DRLIN1	04	Α	Berthall And Black	Break circulation, wash and ream 40' to bottom
e ledic sekuresiin stalid	4:00 - 9:30	5.50	DRLIN1	02	D		Drilling sliding 4082' - 4155', WOB 18-25K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 0, MOTOR RPM = 139, PRESS ON - OFF BTM = 584 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 73', FPH = 13.3
	9:30 - 10:30	1.00	DRLIN1	04	С		Circulate and condition hole for trip
Septimization of the Control of the	10:30 - 11:00	0.50	DRLIN1	05	Α	P	TOOH, tight at 4075', just above sharp bend, acts like coal sloughing in
	11:00 - 12:30	1.50	DRLIN1	05	Α	Š	Work tight hole 4075' - 4035', establish circulation while working tight hole
ere o de la compansión de es	12:30 - 14:30	2.00	DRLIN1	05	Α	<b>P</b>	TOOH to change BHA
	14:30 - 15:30	1.00	DRLIN1	05	Α		Break NMDC and mouse hole. Drain Motor and adjust motor to 2.12 degrees
	15:30 - 16:00	0.50	DRLIN1	05	Α	Postage in the term and the	Orient and scribe motor
	16:00 - 16:30	0.50	DRLIN1	06	Α		Rig Service
normal or energy south of the	16:30 - 20:00	3.50	DRLIN1	05	Α	P 1000 1000 1000 1000 1000	TIH to 4077', install rotating head
	20:00 - 22:30 22:30 - 23:00	2.50 0.50	DRLIN1 DRLIN1	03 02	D D	Beller Personal Perso	Break circulation, wash and ream 4077' to.  Drilli rotating 4155' - 4165', WOB 40K, AIR = 1800  SCFM, GPM = 243, PUMP #1 = 0 SPM, PUMP #2 =  57 SPM, RPM = 40, MOTOR RPM = 145, PRESS  ON - OFF BTM = 700-500 PSI, TORQ ON/OFF  BTM =4-2K, MUD WT = 8.6, VIS = 35, Footage =  10', FPH = 20
	23:00 - 0:00	1.00	DRLIN1	02	D	P	Drilling sliding 4165' - 4180', WOB 40K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 0, MOTOR RPM = 145, PRESS ON - OFF BTM = 500-300 PSI , TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 15',
9/8/2008	0:00 - 0:30	0.50	DRLIN1	02	D	P	FPH = 15 Drilling sliding 4180' - 4186', WOB 40K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 0, MOTOR RPM = 145, PRESS ON - OFF BTM = 500-300 PSI , TORQ ON/OFF BTM = 0K, MUD WT = 8.6, VIS = 35, Footage = 15', FPH = 15



3:58:58PM

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Active Datum:   Level)	RKB @	6,423.00ft	(above Mea	an Sea	UWI: 0/	13/S/10	/E/20/0/NEN	IE/6/PM/N/1,142.00/E/0/0/0/0
Date		Time art-End	Duration (hr)	Phase	Code	Subco de2	P/U M	ID From Operation (ft)
		- 1:00	0.50	DRLIN1	02	D	P	Drilling rotating 4186' - 4196', WOB 25K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 40, MOTOR RPM = 145, PRESS ON - OFF BTM = 535-512 PSI , TORO ON/OFF BTM =8-3K, MUD WT = 8.6, VIS = 35, Footage = 10', FPH = 20
	1:00	~ 3:00	2.00	DRLIN1	02	Ď	P	Drilling sliding 4196' - 4220', WOB 40K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 57 SPM, RPM = 0, MOTOR RPM = 145, PRESS ON - OFF BTM = 537-523 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 24' FPH = 12
a Time Super Artist state of	3:00	- 3:30	0.50	DRLIN1	02	D	P	Drilling rotating 4220' - 4230', WOB 25-30K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 40, MOTOR RPM = 145, PRESS ON - OFF BTM = 522-512 PSI , TORO ON/OFF BTM =8-3K, MUD WT = 8.6, VIS = 35, Footage = 10', FPH = 20
	3:30	- 5:00	1.50	DRLIN1	02	D	P	Drilling sliding 4230' - 4250', WOB 40K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 57 SPM, RPM = 0, MOTOR RPM = 145, PRESS ON - OFF BTM = 537-523 PSI , TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 20' FPH = 13.3
	5:00	- 5:30	0.50	DRLIN1	02	D	P	Drilling rotating 4250' - 4260', WOB 25-30K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 40, MOTOR RPM = 145, PRESS ON - OFF BTM = 522-512 PSI , TORO ON/OFF BTM =8-3K, MUD WT = 8.6, VIS = 35, Footage = 10', FPH = 20
	5:30	- 7:00	1,50	DRLIN1	02	D	P	Drilling sliding 4260' - 4296', WOB 40K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 57 SPM, RPM = 0, MOTOR RPM = 145, PRESS ON - OFF BTM = 537-523 PSI , TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 36' FPH = 24
i Sathair I na gu Satha Gu	7:00	- 8:30	1.50	DRLIN1	02	D	P	Drilling rotating 4296' - 4311', WOB 25K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 40, MOTOR RPM = 145, PRESS ON - OFF BTM = 537-523 PSI , TORO ON/OFF BTM = 6-3K, MUD WT = 8.6, VIS = 35, Footage = 15', FPH = 10
	8:30	- 11:00	2.50	DRLIN1	02	Ď	P	Drilling sliding 4311' - 4325', WOB 25-50K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 0, MOTOR RPM = 145, PRESS ON - OFF BTM = 537-523 PSI , TORO ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 14', FPH = 5.6
		- 15:30	4.50	DRLIN1	02	e filologia di co	P	Drilling rotating 4325' - 4362', WOB 25-30K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 27, MOTOR RPM = 145, PRESS ON - OFF BTM = 582-523 PSI, TORO ON/OFF BTM = 6-3K, MUD WT = 8.6, VIS = 35, Footage = 37', FPH = 8.22, Run 3 directional surveys, Ream 4285' - 4340' before and after survey. Tried to pull up to 4323', tight pulled up to 190k, 35k over pickup weight. String weight Pickup 155k, Slack off 109k, Rotating 131k
		- 16:00	0.50	DRLIN1	03	В	\$	Ream and back ream 4270' - 4362' to help control deviation
	16:00	- 16:30	0.50	DRLIN1	06	Α	Ρ	Rig Service

#### **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

Active Datum: F	RKB @	6 423 00ft	(above Mea	n Sea			End Date: )/E/20/0/NENE/6/PM/N/	Spud Date: 8/14/2008  11 142 00/F/0/0/0
Level)	1110 @	0,120.0010	(above mea		OVVI. C	, 10,0,10	/L/20/0/14L14L/0/1 141/14/	· · · · · · · · · · · · · · · · · · ·
Date	2004	Fime art-End	Duration (hr)	Phase	Code	Subco de2	P/U MD From (ft)	Operation
and have the property of the second		- 0:00	7.50	DRLIN1	02	D	P	Drilling rotating 4362' - 4457', WOB 25-30K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 27, MOTOR RPM = 145, PRESS ON - OFF BTM = 582-523 PSI, TORQ ON/OFF BTM = 6-3K, MUD WT = 8.6, VIS = 35, Footage = 141', FPH = 18.8
9/9/2008	0:00	- 3:30	3.50	DRLIN1	02	D	P	Drilling rotating 4457' - 4503', WOB 25-30K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 27, MOTOR RPM = 145, PRESS ON - OFF BTM = 582-523 PSI, TORQ ON/OFF BTM = 6-3K, MUD WT = 8.6, VIS = 35, Footage = 141', FPH = 18.8
	3:30	- 5:00	1.50	DRLIN1	04	С	Р	Circulate and condition hole
	5:00	- 5:30	0.50	DRLIN1	05	i ESS	P	TOOH, tight at 4396'
entrolling was defined as in		- 11:00	5.50	DRLIN1	05	E	P	Work tight hole at 4349', 4331', 4321', 4256', 4246', 4239' and 4172'. Work through tight spot while establishing circulation w/ air and mud. Returns were heavy w/ coal chunks 1/8" size and shale chunks up 1 1/2" x 1" size
	11:00	- 11:30	0.50	DRLIN1				Line up and check air jet line and verify suction. Pull rotating head
	11:30	- 12:00	0.50	DRLIN1	06	Α	P	Rig service. Change hydraulic hose on ST-80
	12:00	- 13:00	1.00	DRLIN1	05	Α	S P S S S S S S S S	TOOH
	13:00	- 15:30	2.50	DRLIN1	05	Α	Р	Break bit, L/D directional tools
		- 18:00	2.50	DRLIN1	05	F	<b>P</b>	Makeup BHA as follows: Bit, bit sub, 1 - 6 1/2 DC, stabilizer, 2 - 6 1/2" DC and push pipe
		- 20:30	2.50	DRLIN1	06	D	Р	Cut Drilling Line
	20:30	- 0:00	3.50	DRLIN1	05	F		TIH (SLM), Install rotating head, tagged bridge at 4065'. Air hands is having trouble getting booster
9/10/2008	0.00	- 20:30	20.50	DRLIN1	12	E	(강) (12년 12년 12년 12년 12년 12년 12년 12년 12년 12년	running W.O./ AIR BOOSTER & INSTALL NEW BOOSTER
9/10/2000		- 21:30	1.00	DRLIN1	07	A		REPLACE HYDRALIC HOSE ON IRON
		- 0:00				F	P	ROUGHNECK BROKE ON FIRST STD TRIP IN HOLE TO REAM ALL TIGHT SPOTS
	21.50	- 0.00	2.50	DRLIN1	05	г	r	INSTALL ROTATING HEADTAG @ 4058
9/11/2008	0:00	- 12:00	12.00	DRLIN1	03	Α		REAMING F/4058 T/4503 WITH 1600 TO 1750 CFM, 20 SPM 336 - 359 GPM, 25 -50 RPM TORQUE 3-10K, WOB 5 -20K, TIGHT @ 4089, 4105, 4129, 4203, 4251
e with 1505-9415 to we	12:00	- 12:30	0.50	DRLIN1	04	G	t e parecialização de la dispersión de la P	CIRC AND PUMP HIGH VIS SWEEP.
		- 14:00	1.50	DRLIN1	05	Æ.		WIPER TRIP AND BACK REAM 4328, 4279, 4267 AND 4259
i de la de como de la Antonia e la decembra de la como de la decembra de la como de la como de la como de la c	14:00	- 17:00	3.00	DRLIN1	03	Α	P	REAMING F/4058 T/4503 WITH 1600 TO 1750 CFM, 20 SPM 336 - 359 GPM, 25 -50 RPM TORQUE 3-10K, WOB 5 -20K, TIGHT @ 4089, 4105, 4129, 4203, 4251
	17:00	- 19:30	2.50	DRLIN1	05	E		WIPER TRIP & BACK REAM F/4503 T/ 4058
r yg har er blir til - 52 1995	No. 10 Carl	- 22:30	3.00	DRLIN1	03	Α	ur yan erin tiri urten da Bradtan di Sultan Bradtan di Sultan Bradtan di Sultan Bradtan di Sultan Bradtan di S	REAMING F/4058 T/4503 WITH 1600 TO 1750 CFM, 20 SPM 336 - 359 GPM, 25 -50 RPM TORQUE 3-10K, WOB 5 -20K, TIGHT @ 4089, 4105, 4129, 4203, 4251
ASSUMBLY	22:30	- 0:00	1.50	DRLIN1	05	E	我没有一个的人	WIPER TRIP & BACK REAM F/4503 T/ 4058
9/12/2008	0:00	- 0:30	0.50	DRLIN1	05	Е	Р	4 STD WIPER TRIP F/ 4503 T/ 4058
	0:30	- 1:00	0.50	DRLIN1	04	С		CIRC. & COND. HOLE FOR 7" CSG
e en senera de la reserva (1997 de 1997)	m substall.	- 10:00	9.00	DRLIN1	05	D	Zarania i serenti e satte distanti senti il Santa i serenti e senti se	PULL 10 STD & LAY DOWN DP TO RUN 7" CSG PULL WEAR BUSHING, CHANGE BAILS AND ELEVATORS.

OCT 28 2008

DIV. OF OIL, CAS & MINERO

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298 Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

Active Datum: Level)	RKB @6	6,423.00ft (	(above Mea	ın Sea	UWI: 0/13/S/10/E/20/0/NENE/6/PM/N/1,142.00/E/0/0/0/0							
Date	TO THE WAY AND THE PARTY OF THE	ime	Duration	Phase	Code	Subco	P/U	MD From Operation				
		rt-End - 12:00	(hr) 2.00	DRLIN1	11	de2 A	Р	(ft)  HELD SAFETY MTG WITH CASING CREWS AND RIGGED CASING EQUIPMENT.				
	12:00	- 0:00	12.00	DRLIN1	11	В	P	RUN 7" 23# J-55 LTC, WORKING CSG. THROUGH TIGHT HOLE @ 4058 TO 4170				
9/13/2008		-		DRLIN1	13	С	Р					
		- 3:30	3.50	DRLIN1	11	В	Р	RUN 7" 23# J 55 LTC , WORKING TIGHT HOLE F/4170 T/ 4490.				
we stand we get a control		- 7:00	3.50	DRLIN1	04	A	Р	CIRC HOLE TO CEMENT, RIG DOWN WEATHERFORD CASERS, HELD SAFETY MEETING W/SUPERIOR CEMENTERS & RIG UP CEMENTERS				
	7:00	9:30	2.50	DRLIN1	15	Α	<b>P</b>	CEMENT ( FIRST STAGE) WITH 10 BBLS WATER, 30 BBLS REACTIVE SPACER, 10 BBLS WATER, 430 SKS CEMENT, DROP PLUG @ 08:30, DISPLACE W/120 BBLS PUMP LOST PRIME ON THE DISPL AND SWITCHED TO MUD IN THAT TIME THE CMT SET UP.STILL HAD 55 BBLS OF DISPL TO PUMP = 1399' OF CMT IN PIPE. DO HAVE 37 BBLS OF CMT ON THE OUTSIDE = 1380' DROPPED DV OPENING TOOL @ 09:05, LANDED 7" CSG ON HANGER @ 09:20				
		- 12:30	3.00	DRLIN1	04	Α	Р	CIRC. THROUGH DV TOOL 700 CFM 108 GPM, 20 SPM 90 GPM TOTAL 197 GPM				
	12:30	- 15:00	2.50	DRLIN1	15	A	P	SAFETY MEETING W/SUPERIOR CEMENTERS, CEMENT ( SECOND STAGE ) W/10 BBLS WATER, 30 BBLS REACTIVE SPACER, 10 BBLS WATER, 550 SK CEMENT, DROPPED PLUG @ 14:10, DISPLACED W/84 BBLS WATER, BUMPED PLUG @ 3500 PSI FLOAT HELD DV TOOL CLOSED, NO CEMENT TO SURFACE				
	15:00	- 16:00	1.00	DRLIN1	15	Α	Р	WASH & FLUSH STACK & FLOWLINE, RIG DOWN CEMENTERS.				
	16:00	- 18:00	2.00	DRLIN1	13	Α	Р	REMOVE CIRC. SWEDGE, L/D LANDING JT., RIG UP FMC, SET PACK OFF TOOL, TEST 7" CSG @ WELLHEAD T/3000 PSI FOR 15 MINS, L/D PACK OFF TOOL & TEST JT. L/D 4.5 DP OUT OF				
	10.00	40.00	0.50	DDLINA	00			DERRICK. RIG SERVICE				
		- 18:30 - 20:00	0.50 1.50	DRLIN1 DRLIN1	06 07	А А	P X	REPAIR HYDRAULIC HOSE ON IRON				
	20:00	- 0:00	4.00	DRLIN1	13	Α	P	ROUGHNECK L/D DP, CHANGE OUT BAILS & ELEVATORS, CHANGE OUT 7" RAMS TO 2 7/8" RAMS, CHANGE OUT 5" RAMS TO 5 1/2" RAMS				
9/14/2008	0:00	- 2:00	2.00	DRLIN1	13	C	P	CHANGING 7" RAMS TO 2 7/8" RAMS & 5" RAMS TO TO 5 1/2" RAMS				
	2:00	- 8:00	6.00	DRLIN1	12	F	X	WAIT ON BOP HAND FOR RENTAL BOPS, SLIDE PLATE ON RAM CRACKED & BENT, UNABLE TO CHANGE RAMS.				
	8:00	- 9:30	1.50	DRLIN1	13	D	X	PULLED CYLINDER FROM BOPE AND INSPECT AND FOUND CRACK AND IT WAS BENT: CAN NOT FIND ANOTHER CYLINDER.				
uur taasi kun anna Sentaa (Se	9:30	- 12:30	3.00	DRLIN1	12	F	X	WAIT ON WELDER TO COME AND REPAIR RAM CYLINDER.				
	12:30	- 14:30	2.00	DRLIN1	13	D	X	WELD AND REPAIR RAM CYLINDER AND LET COOL.				
	14:30	- 19:00	4.50	DRLIN1	13	С	Р	PRESSURE TEST BOPs 2 7/8 RAM, 4 1/2, BLIND RAMS, BOP VALVES, CHOKE MANIFOLD TO 3000# HIGH, 250# LOW. ANNULAR TO 1900# HIGH, 250# LOW				

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING			Start Da			End Date:	Spud Date: 8/14/2008	
Active Datum: Level)	(above Mea	n Sea	UWI: 0/13/S/10/E/20/0/NENE/6/PM/N			/1,142.00/E/0/0/0/0		
Date		ime rt-End	Duration (hr)	Phase	Code	Subco de2	P/U MD From	m , Operation
	19:00	- 22:00 - 0:00	3.00	DRLIN1 DRLIN1	05	A E	P	STRAPING BHA, RIG UP PICK UP MACHINE, ATTEMPT TO PICK UP BHA, WRONG ELEVATORS, COULDN'T LATCH ELEVATORS WAIT ON ELEVATORS, FOR PICKING UP BHA
							# <b>^</b> (## - 10 ##. ##################################	THE ELEVATORS WAS 3 1/4 AND COLLARS ARE 3 1/8"
9/15/2008		- 2:30	2.50	DRLIN1	12	Е	X	WAIT ON ELEVATORS FOR BHA
		- 8:30	6.00	DRLIN1	05	Α	<b>.</b>	PICKING UP BHA & DP TAG CEMENT @ 2136 RIG DOWN LAYDOWN MACHINE
		- 9:00	0.50	DRLIN1	04	Α	<b>P</b>	CIRC. & COND. HOLE
		- 11:00	2.00	DRLIN1	02	, <b>F</b>	7 <b>.</b>	DRLG CEMENT & DV TOOL F/2136 T/2156
		- 12:00	1.00	DRLIN1	05	Α	P	TIH F/2177 T/2406' TAG CEMENT STRINGER
		- 16:30	4.50	DRLIN1	03	E		WASH & REAM F/2406 T/2412 TIH 2412-2430 WASH AND REAM F/2430-2453
		- 18:00	1.50	DRLIN1	05	G	X	L/D STAND IN MOUSE HOLE TIGHTEN TOP CONN THAT WAS LEAKING. TRIPPED OUT 7 STDS AND CHECKED EVERY CONN AND RETIGHTEN CONNECTIONS AND TRIP BACK IN
	18:00	- 19:30	1.50	DRLIN1	02	<b>.</b>	P	DRLG F/2453 T/ 2454 WOB 2-5K, RPM 60, MP #2 33 SPM, 148 GPM, 965 TO 1008, TORQUE ON/OFF 3/12K
top all the active the difference to earlier		- 23:00	3.50	DRLIN1	05	Н	X	POOH, LOST WEIGHT & PUMP PRESSURE, (HAD BACKED OFF 8 DC DOWN)
		- 0:00	1.00	DRLIN1	05	Н	P	TIH TO TRY & SCREW INTO FISH @ 998
9/16/2008		- 2:00	2.00	DRLIN1	05	Н	Р	TIH TO SCREW INTO FISH @ 998
		- 9:00	7.00	DRLIN1	05	H .		SCREWED INTO FISH TOH BREAK EVERY DC & CHECK THE TREADS DOPE & RE-TORQUE
		- 12:00	3.00	DRLIN1	05	G	Postario de la companio della compan	L/D BAD COLLARS RE-RACK PIPE IN DERRICK
		- 12:30	0.50	DRLIN1	06	Α		LUBRICATE RIG
and the second second		- 16:00	3.50	DRLIN1	11	Α	P	PREPARED 5 1/2 CSG
		- 18:00 - 20:30	2.00	DRLIN1	05 10	H	P	LOADING OUT ROLLER REAMERS, CLEANING UP LOCATION WAITING ON 4.3/4 DC \$ 3.4/2 DB MOVING 2.7/9
	W	- 20:30	2.50 3.50	DRLIN1 DRLIN1	12 12	E	P (* <b>p</b> (23)	WAITING ON 4 3/4 DC & 3 1/2 DP. MOVING 2 7/8 DP TO LOCATION UNLOAD MUD MTRS, DC & DP STRAP &
9/17/2008		- 0:30	0.50	DRLIN1	05	Ā	े हैं <i>कि</i> कि	CALIPER CHANGE OUT ELEVATORS, GET RENTAL
**************************************	0.20	o o legada e	inter bud a Belief	in real easy (see y all fil	1.2 (1.4.4)	74 1 <b>2</b> 4 (73), 8	en 🚅 veres en mañ e alema.	EQUIPMENT ON FLOOR
		- 10:30	10.00	DRLIN1	05	A		PICK UP MUD MTR, 4 3/4 DC, 3 1/2 DP TO 2452
		- 13:00 - 14:30	2.50 1.50	DRLIN1 DRLIN1	02 05	F	- <b>P</b> @ <b>p</b> ()	DRLG CEMENT F/2452 TO 2470, WOB 15/17, #2 SPM 55, GPM 248 PICK UP PIPE TO 3104
		- 17:30	3.00	DRLIN1	02	F		DRLG CEMENT F/3104 T/3476, WOB 15/17, #2 SPM 55,GPM 248
		- 18:00	0.50	DRLIN1	06	Α		LUBRICATE RIG
ene a salah sa		- 0:00	6.00	DRLIN1	02	F Maranan	e w <u>a</u> e tu tu dhe e dhi indi	DRLG CEMENT F/3476 T/3923 WOB 15/17, #2 PUMP SPM 55, GPM 248.
9/18/2008	0:00	- 8:00	8.00	DRLIN1	02		P	DRLG F/3923 T/ , WOB 16, #2 PUMP SPM 55, GPM 248. SPP 1340, RPM TD 50, RPM MM 138 TOTAL RPM 188. ROP 80 TO105 ROP
	8:00	- 10:00	2.00	DRLIN1	11	С	P	ATTEMPT TO PRESSURE TEST CSG TO 1500 PSI. PRESSURED UP TO 500 PSI & BLED OFF WHEN KICKED OUT
	10:00	- 13:00	3.00	DRLIN1	05	K	P	TOH FOR TEST PLUG LOST ONE CONE ON BIT. IT HAS BEEN GONE FOR AWHILE.
	13:00	- 13:30	0.50	DRLIN1	06	Α	fully fair-a sidilared P	LUBRICATE RIG

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event. DRILLII				Start Da	T		End Date:	Spud Date: 8/14/2008
Active Datum: Level)	RKB @	6,423.00ft	(above Mea	n Sea	UWI:	0/13/S/10	0/E/20/0/NENE/6/	/PM/N/1,142.00/E/0/0/0/0
Date		Time art-End	Duration (hr)	Phase	Code	Subco de2	P/U MD F (fi	
		- 18:00	4.50	DRLIN1	05	K	Р	TIH WITH TEST PLUG, TESTING EVERY 5 STDS, LAST TEST @ 2106 PRESSURE HELD.
	18:00	- 20:00	2.00	DRLIN1	05	1 /	P	TOH TEST PLUG WOULDN'T GO THROUGH DV TOOL.
	20:00	- 23:00	3.00	DRLIN1	08	В	Р	RIG UP WIRELINE TRUCK & RUN BOND LOG W/PHOENIX SURVEYS
	23:00	- 0:00	1.00	DRLIN1	12	E	- ₽.	WAITING FOR STRING MILLS W/GRACO
9/19/2008	0:00	- 5:30	5.50	DRLIN1	05	l	P	TIH WITH 6 1/8 SRING MILL TO REAM TIGHT SPOTS @ DV TOOL @ 2154 & CSG, @ 2275,2458
		- 7:00	1.50	DRLIN1	05	K	P	TOH FOR TEST PLUG
		- 12:30	5.50	DRLIN1	05	Α	Р	MAKE UP CUP PACKER, TIH TO DV TOOL @ 2150, COULDN'T GET PAST 2183, TESTED THERE TO 1000 PSI
		- 14:00	1.50	DRLIN1	05	Α	Ρ	TOH FOR STRING MILL
		- 14:30	0.50	DRLIN1	06	Α	Р	LUBRICATE RIG
		- 18:30	4.00	DRLIN1	07	Α	Z	DRAWORKS #2 MODULE IN THE VFD IS DOWN
No.		- 20:30	2.00	DRLIN1	05	Α	Р	TOH TO LAY DOWWN CUP PACKER, PICK UP BIT & STRING MILL
	20:30	- 0:00	3.50	DRLIN1	07	Α		REPLACE #2 MODULE IN THE VFD, DYNAMIC BRAKE ISN'T WORKING RIGHT IT WILL COAST UP AS WELL AS DOWN 4 TO 5 FT. WITH NO WEIGHT, TROUBLE SHOOTING SYSTEM.
9/20/2008		- 11:30	11.50	DRLIN1	07	Α	Z	#2 MODULE IN THE VFD WAS REPLACED BUT THE DYNAMIC BRAKE ISN'T WORKING PROPERLY. TROUBLE SHOOTING SYSTEM, TOP DRIVE CONTINUES TO MOVE AFTER SHUT DOWN MAKING IT UNSAFE. WAIT ON OMRON TECH.
	11:30	- 17:00	5.50	DRLIN1	05	В	P	PICK UP HALCO RTTS TOOL, TIH TO 2440 TEST UP GOOD, 2480 TEST UP BAD, 2480 TEST DOWN GOOD, TEST @ 2445 GOOD, TEST @ 2449 BAD, HOLE IS BETWEEN 2445 & 2449.
		- 18:00	1.00	DRLIN1	05	K	Р	TOH TO LAY DOWN HALCO RTTS TOOL
		- 19:30	1.50	DRLIN1	05	С	. <b>P</b>	TIH TO 2388 OPEN ENDED TO SET CEMENT PLUG.
		- 21:00	1.50	DRLIN1	06	D	Р	SLIP & CUT DRLG LINE RECALIBRATE BLOCKS
	21:00	- 0:00	3.00	DRLIN1	12	F	P	CIRC. HOLE OUT WHILE WAITING FOR CEMENTERS
9/21/2008	0:00	- 5:30	5.50	DRLIN1	12	F	P	WAIT ON CEMENTERS TO SET CEMENT PLUG
		- 7:30	2.00	DRLIN1	15	В	-> <b>P</b> 1123 - 1 3 -> 1 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	HELD SAFETY MTG. RIG UP CEMENTERS TO SET 100 SK CEMENT PLUG
		- 8:00	0.50	DRLIN1	15	В	P	PUMPED 100 SKS OF CLASS G 15.8# 21 BBLS DISPLACE 17.7 BBLS OF WATER
		- 13:00	5.00	DRLIN1	12	В	P	PULLED 2 STDS. TO 2156 CIRC HOLE CLEAN. AFTER 3 HRS. RAN BACK TO 2388 TAGGED SOFT CMT. PICKED UP CIRC PIPE CLEAN AND WAITED UNTIL 13:00 AND TAGGED GOOD CMT AT 2403' SET 20K ON IT AND HELD.
a yn Tgadhgela eithireach.		- 14:00	1.00	DRLIN1	05	C	P san⊈suerit etkut it n	TRIP OUT OF HOLE.
		- 14:30	0,50	DRLIN1	15	В	a Parakian	RIG DOWN CMT EQUIPMENT.
55 JOS AND PURSA		- 15:00	0.50	DRLIN1	06	Α	P sassana araka	RIG SERVICE
		- 16:30	1.50	DRLIN1	05		<b>P</b>	PICK UP MUD MOTOR AND BIT AND TRIP IN TO 2388'
	16:30	- 20:00	3.50	DRLIN1	12	В	Р	WAIT ON CMT.



## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

					te: 7/30	/2008	End Date:	Spud Date: 8/14/2008				
Active Datum: RKB @6,423.00ft (above Mean Sea Level)						UWI: 0/13/S/10/E/20/0/NENE/6/PM/N/1,142.00/E/0/0/0/0						
Date		Time art-End	Duration (hr)	Phase	Code	Subco de2	P/U MD Fro					
	20:00	- 21:00	1.00	DRLIN1	02	F	P	TAG CEMENT STRINGER @ 2407 & 2459, DRILLED STRINGES OUT, CIRC. OUT CEMENT, ATTEMPT TO PRESSURE TEST. PRESSURED UP TO 975 PSI AT A GRADUAL INCREASE BUT PLUG BROKE DOWN. PRESSURE THEN DECREASED RAPIDLY.				
	error of the service	- 23:00	2.00	DRLIN1	05	Α	P	TOH WITH BIT & COLLARS & STAND BACK				
		- 0:00	1.00	DRLIN1	05	Α	P	TIH OPEN ENDED WITH CEMENT STRING.25 STDS DP TO 2388				
9/22/2008	0:00	- 16:00	16.00	DRLIN1	12	<b>E</b> (1)	• <b>P</b>	WAITING ON CEMENT EQUIPMENT, UNABLE TO LOCATE CEMENT PUMP TRUCK, ALL CEMENTING COMPANYS ARE BUSY				
	16:00	- 17:00	1.00	DRLIN1	15	В	Р	RIG UP CEMENTERS, HELD SAFETY MEETING				
		- 17:30	0.50	DRLIN1	80	В	P	CHECK INJECTION RATE, CSG PRESSURED UP TO 800 PSI HELD FOR 20 MIN LOST 8 PSI				
		- 18:30	1.00	DRLIN1	05	Α	P	TOH TO PICK UP BIT & BHA				
		- 22:00	3.50	DRLIN1	05	Α	P	TRIP IN HOLE WITH BIT & BHA				
		- 0:00	2.00	DRLIN1	02	F SALESS	P	DRILL CEMENT, FLOAT, CEMENT. WOB 15K, RPM 60, SPM 50, SPP 755, GPM 225				
9/23/2008		- 6:00 - 7:00	6.00	DRLIN1	02	F	P	DRLG CEMENT & SHOE				
Nasa da baranga		- 7:00 - 12:00	1.00 5.00	DRLIN1	11	A	P Sabilitation station	RIG UP LAY DOWN MACHINE				
		- 14:30	5.00 2.50	DRLIN1 DRLIN1	05 11	D A	P X	L/D 3 1/2 DRILL PIPE AND BHA. HELD SAFETY MTG WITH CASING CREWS AND				
and the second seco								RIG UP. (DID NOT BRING BACK UP TONGS AND COLLAR CLAMP SAID THEY HAD THEM AND IT WAS NOT ON TRUCK) RIG DOWN AND RELEASED CSG. EQUIPMENT. BERNARD CASING SERVICE.				
		- 17:00	2.50	DRLIN1	12	E	X	WAITING ON CASING CREWS AND EQUIPMENT.				
		- 17:30	0.50	DRLIN1	06	Α	Р	RIG SERVICE.				
		- 18:00	0.50	DRLIN1	12	E	<b>P</b>	WAITING ON CASING CREWS AND EQUIPMENT.				
uner charbhun 總数名		- 19:30	1.50	DRLIN1	11	Α	P - Action Consists	HELD SAFETY MTG. AND RIG UP CASING EQUIPMENT.				
	19.30	- 0:00	4:50	DRLIN1	11	B		RUN 5 1/2", 17# J-55 ULTRA-FLUSH JOINTS LEFT HAND THREAD. STARTED TO GET HOLE DRAG AT 2426' AND IT WAS THAT WAY FOR 5 JTS. DRAGGED ABOUT 20-25K DOWN.				
9/24/2008	0:00	- 1:30	1.50	DRLIN1	11	В	Р	RUN 104 JTS. 5.5 17# J 55 ULTRA FLUSH CSG.TO 4481				
		- 2:00	0.50	DRLIN1	11	Α	P	RIG DOWN CASERS				
u innese sen um el sen en	2:00	- 5:30	3.50	DRLPRO	18	Α	P	PICK UP STACK, SET SLIPS W/70K, CUT OFF CSG				
		- 11:00	5.50	DRLPRO	13	Α	P	NIPPLE UP STACK				
ngagan series er han		- 11:30	0.50	DRLPRO	13	С	<b>P</b> Jakobski propinski je na	Pickup and make up testing tools				
	11:30	- 12:30	1.00	DRLPRO	13	С	P	Pressure test BOPE to 250 low 5 minutes, 3000 high 10 minutes. Wittnessed by Walton Wilis w/ BLM				
evi, e vi i i i i i Cirili Steti	12:30	- 13:00	0.50	DRLPRO	06	Α	P	Rig Service				
	13:00	- 16:30	3.50	DRLPRO	05	Α	<b>/P</b>	Make up directional tools				
The second section of the second section of the second sec	A. 18 Oct. 1 (1997)	- 17:00	0.50	DRLPRO	05	Α	P	Rig up Weatherfords pickup machine				
		- 20:30	3.50	DRLPRO	05	Α	P	Pickup 2 7/8" drill pipe. Using Weatherford hydraulic tongs for make, torque 4600				
		- 21:00	0.50	DRLPRO	05	Α	Р	Rig down Weatherfords pickup machine				
	21:00	- 23:00	2.00	DRLPRO	05	Α	P	TIH and strap drill string in derrick				

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

	RKB @6,423.00ft	(above Mea	an Sea	UWI: (	0/13/S/10	/E/20/0/NENE/6/PM/N	/1,142.00/E/0/0/0/0
Level) Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U MD From (ft)	Operation
	23:00 - 23:30	0.50	DRLPRO	05	A A	S (II)	Check drill pipe count, making sure drill string is
	23:30 - 0:00		DDI DDA				Correct
0/05/0000	0:00 - 2:00	0.50	DRLPRO	05	Α	Pulaten et Militaria (1992)	Install rotating head
9/25/2008		2.00	DRLPRO	04	A	P	Attempt to displace casing w/ air
	2:00 - 6:00	4.00	DRLPRO	02	D	P	DRILL FROM 4503' TO 4532' - Actual depth was 4472' - 4501'
13.13±3±	6:00 - 11:00	5.00	DRLPRO	05	Α	J <b>P</b> ** Solate	TRIP OUT OF HOLE
and the second	11:00 - 12:00	1.00	DRLPRO	12	Α	P	WAITING ON ORDERS
	12:00 - 13:00	1.00	DRLPRO	05	Α		LAYING DOWN DIRECTIONAL TOOLS
	13:00 - 13:30	0.50	DRLPRO	06	Α	<b>P</b>	LUBRICATE RIG
	13:30 - 15:30	2.00	DRLPRO	12	E	<b>P</b> 100 100 100 100 100 100 100 100 100 10	WAITING ON NEW BIT
Property of the Control of the Control	15:30 - 17:30	2.00	DRLPRO	05	Α	P	MAKE UP BIT & TRIP IN HOLE TO 2000'
	17:30 - 18:00	0.50	DRLPRO	04	Н		UNLOADED HOLE WITH 800 CFM AT 2000'
na province services in	18:00 - 21:00	3.00	DRLPRO	05	Α	P	TRIPPING IN HOLE TO 4998'
	21:00 - 0:00	3.00	DRLPRO	04	Н	7 <b>P</b> (7)	UNLOADING HOLE W/ 1000 SCFM AIR
9/26/2008	0:00 - 0:30	0.50	DRLPRO	04	Н	<b>P</b>	Unload hole w/ air down drill pipe and blow dry. Establish air injection down parasite string
	0:30 - 3:30	3.00	DRLPRO	02	D	<b>P</b>	Work past junk at 4498' several time and drill 4503 - 4517'. Pickup above 4498' and could not make it
	3:30 - 9:00		DDI DDA	A			back to bottom
18724 (July J. 1973)		5.50	DRLPRO	05	Α	X	TOOH to check bit and pickup mill and junk sub
	9:00 - 9:30	0.50	DRLPRO	06	Α	P	Rig Service
ing the Alberta	9:30 - 11:00 11:00 - 15:30	1.50	DRLPRO	05	<b>A</b>	<b>X</b> 	HSM about picking up fishing tools and pickup milling BHA
	11.00 - 15:30	4.50	DRLPRO	05	Α	X	TIH w/ milling BHA. Unload hole at 3000'. TIH, tagged at 4495'
The production of the first	15:30 - 16:00	0.50	DRLPRO	04	Н	X	Unload hole w/ mill at 4493' and air going down dril pipe
	16:00 - 16:30	0.50	DRLPRO	04	Ĥ	X	Establish circulation w/ air going down parasite string and fluid going down drill pipe
	16:30 - 0:00	7.50	DRLPRO	16	Α	X	Mill on junk 4490' - 4503'
9/27/2008	0:00 - 3:00	3.00	DRLPRO	05	Α	X	TOOH slow, change elevators as needed. Visualy inspect connection, found 2 connection w/ 1/2" gap tighten. Had trouble breaking tool joints due to ove torque. From 4481' to 3500' had 6k drag
	3:00 - 3:30	0.50	DRLPRO	05	Α	X - X	Pull rotating head
	3:30 - 4:00	0.50	DRLPRO		Α		/TOOH . Šiles seeks to the seeks to be a
	4:00 - 6:00	2.00	DRLPRO	05	Α	X	Break mill and junk basket and empty. Found flat steal shavings, m/u new mill & basket & T.I.H.
	6:00 - 12:00	6.00	DRLPRO		Α	X	TIH, installed rotating head, unloaded hole 3040' & 4480' W/ 1000 SCFM air
	12:00 - 13:00	1.00	DRLPRO	04	H	<b>X</b>	Establish circulation w/ air going down parasite string and fluid going down drill pipe
	13:00 - 15:30	2.50	DRLPRO		Α	. <b>X</b>	Mill on junk, tag @ 4495' work down to 4516'
	15:30 - 18:00	2.50	DRLPRO	16	В	X	Work Stuck Pipe
	18:00 - 0:00	6.00	DRLPRO	16	В _	X	Work Stuck Pipe @ 4516' trying various things to free up pipe
9/28/2008	0:00 - 5:00	5.00	DRLPRO	12	F	X	Wait on backoff wireline unit and fishing tools
	5:00 - 9:30	4.50	DRLPRO	16	В	X	HSM w/ DCT Wireline crew and rig up to free point and back off. Had to change rope scokett for 1" tools.
	9:30 - 11:00	1.50	DRLPRO	16	В	X Transport Medical Programme Alexandrian	RIH w/ 1" free point tools, had to pump 5 - 25 SPM to help get tools to bottom
September 1	11:00 - 12:00	1.00	DRLPRO	16	В	X	Laid down free point tools and pickup back off tool

#### **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLI		Start Da	te: 7/30	/2008	End Date:	Spud Date: 8/14/2008		
Active Datum: Level)	(above Mea	n Sea	UWI: (	0/13/S/10	/E/20/0/NENE/6/PM/N	N/1,142.00/E/0/0/0/0		
Date	A CONTRACTOR OF THE PARTY OF TH	Time art-End	Duration (hr)	Phase	Code	Subco de2	P/U MD From (ft)	Operation
	12:00	- 14:00	2.00	DRLPRO	16	В	X	Pull backoff tools and rig down DCT Wireline. Install mouse hole and prep to TOOH
1. 1984 (1982) (1994) (1994) (1994)	14:00	- 14:30	0.50	DRLPRO	16	B		RIH w/ back off tools and back off at 4442'. Fish left in hole: Mill, junk basket, bit sub, xo sub, xo sub, 2 joints DP. Total length 74.45'. Top of fish at 4442'
	14:30	- 15:00	0.50	DRLPRO	12	E	<b>X</b> 1300 0000	Wait on Weatherford to get engine for power tongs running
The second secon	15:00	- 17:30	2.50	DRLPRO	16	Α	X	TOOH to pickup fishing tools
	17:30	- 18:00	0.50	DRLPRO	06	Α	<b>P</b> (3)	LUBRICATE RIG
2000		- 18:30	0.50	DRLPRO	06	Α	Р	INSPECTED DERRICK
		- 19:00	0.50	DRLPRO	05	Α	X	P/U & M/U OVERSHOT, BUMPER SUB, JAR AND T.I.H. TO TOP OF FISH 4442'
		- 20:30	1.50	DRLPRO	05	Α	X	T.I.H.
	20:30	- 21:00	0.50	DRLPRO	05	Α	×	INSTALL R/T HEAD
	21:00	- 0:00	3.00	DRLPRO	05	Α	X	T.I.H. CK. TQ.
9/29/2008	0:00	- 0:30	0.50	DRLPRO	05	Α	X	TIH w/ overshot
		- 8:00	7.50	DRLPRO	16	Α	X	Work overshot over fish and jar on fish start setting jars off at 140k and increasing to 155k
	Service Life Bolt 1	- 12:00	4.00	DRLPRO	05	Α	X	TOOH w/ fish, drag 4442' - 2966'
		- 14:00	2.00	DRLPRO	16	Α	X	Recovered fish. Lay down fish
	14:00	- 15:30	1.50	DRLPRO	16	Α	X	Pickup reverse circulating junk basket. Check float and cleaned out, it was full of metal cuttings, recovered 2 pounds of metal
	15:30	- 16:00	0.50	DRLPRO	06	Α	ither colorest see 2014 . P	Rig Service
		- 16:30	0.50	DRLPRO	06	Α	x	Inspect derrck and top drive after jarring. Found
		- 20:00	3.50	DRLPRO	05	A	X	bent hydraulic fitting to IBOP, changed out TIH w/ reverse circulating junk basket. Change elevator as needed to straighten drill pipe and drill collar up
	20:00	- 20:30	0.50	DRLPRO	05	Α		Install rotating head
Brust Maksiman in 999	erante Seniffici	- 22:00	1.50	DRLPRO	16	A		Make up top drive and break circulation w/ 20 spm at 4497'. Setting down on some junk, tried to work past junk, not successful
	22:00	- 23:30	1.50	DRLPRO	05	Α	<b>x</b>	TOOH 50 DC. change elevators over to drill pipe
ent admin 5 March 16 (d. 1964). Who	23:30	1997年 - 中国主教公司	0.50	DRLPRO	05	Α		Pull rotating head
9/30/2008	0:00	- 0:30	0.50	DRLPRO	05	Α	a <b>x</b> see a too	Pull rotating head
# 13: 21,000 to 14: 4: 03: 14:	되었다는 그것은 것	- 1:30	1.00	DRLPRO	05	Α	ns un la servició de la sella acen X	TOOH, lay down reverse circulation junk basket. Make up mill, watermelon mill and junk basket. Clean floor
	1:30	- 2:00	0.50	DRLPRO	12	E	×	Work on Weatherford's hydraulic power tongs, had
	2.00			DDI DD0	^-			to change out
an eng ng pintinggan si siyasatat	2:00	- 3:30	1.50	DRLPRO	05	Α	<b>X</b> Dis <b>Q</b> ortungstate (for play of	TIH, SLM I - Passwan wataki mperaparan para ay nasa sa sinta na mana sa sa
	3:30	- 4:00	0.50	DRLPRO	05	A	X. Balling	Install rotating head
	4:00 5:30	- 5:30	1.50	DRLPRO	05	Α	X SQUESTILLIANA	Change elevators to DC's and continue to TIH, SLM Establish circulation
	6:00	- 6:00 - 13:00	0.50 7.00	DRLPRO DRLPRO	04 16	A A	X X	Mill 4495'-4497' WOB 2-8K, RPM 65-75, SPM 36-42, GPM 116-135, Torq 1-3K. Hard milling 4508'
2.1971 - 2.711	14 . 22 . 252		. g. Santa and the co		and the second			- 4510'
		- 14:00	1.00	DRLPRO	12	E		Work on Weatherford's hydraulic power tongs
	14:00	- 19:30	5.50	DRLPRO	05	Α	X	TOOH, break mill & junk basket and inspect. Visually inspect connection, found 1 connection that had about 1/2" gap.
	19:30	- 0:00	4.50	DRLPRO	05	Α	X	Make up new mill, trip in hole, retorque every connection, connections were at recommended torque.

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: 8/14/2008

Event: DRILLI	NG			Start Da	te: 7/30	/2008	End Date:	Spud Date: 8/14/2008		
Active Datum: Level)	RKB @	6,423.00ft	(above Me	ean Sea	UWI: 0/13/S/10/E/20/0/NENE/6/PM/N/1,142.00/E/0/0/0/0					
Date		Fime art-End	Duration (hr)	Phase	Code	Subco de2	P/U MD F			
10/1/2008	the Marchael Science	- 0:30 - 9:00	0.50 8.50	DRLPRO DRLPRO	05 16	A A	X X	Finish TIH, checking every connection's torque Mill on junk 4510' - 4515' WOB 3-11, RPM 75-85, Pump #1 42-48 SPM, 135-155 GPM, Pressure 1530-2025, Torq 1-3K. Worked hole 2 time from 4495' - 4515' and one time to 4513'. Pulled back to 4490 and worked down to 4500' could not get		
	9:00	- 13:00	4.00	DRLPRO	05	Α	×	deeper. TOOH, L/D Kelly XO sub. Visually check breaks. Break off mill and junk basket		
	13:00	- 13:30	0.50	DRLPRO	06	Α	Р	Rig Service		
		- 15:00	1.50	DRLPRO	07	Α	S	Power down PLC's. Power down rig to change breaker in VFD house		
	15:00	- 17:00	2.00	DRLPRO	05	Α	X	Finish laying down milling tools and rig down Weatherford power tongs		
	17:00	- 20:00	3.00	DRLPRO	13	Α	X	Prep to lay down 5 1/2" casing. Break BOP at wellhead. Rig down flow line - Pick up BOP		
	20:00	- 22:00	2.00	DRLPRO	16	Α	X	Make up spear & grappler - Spear into 5 1/2 casing - Pull up and remove casing slips - 115k to pull pipe - Pull up to 1st casing connection - set slips & collar clamp		
	22:00	- 0:00	2.00	DRLPRO	13	Α	X	Nipple up BOP & rig up flow line		
10/2/2008		- 1:00	1.00	DRLPRO	13	Α	X	Nipple up BOP & flow line		
(10/2)/2000 (14/3) (14/3)		- 4:00	3.00	DRLPRO	11	A		HSM and rig up Frank's Westates casing crew's		
								power tongs, elevators, backup tongs, spot HPU and rig up hydraulic lines. Back out 1 joint of casing and set in mouse hole. Laid down joint of casing and fishing tools		
	4:00	- 4:30	0.50	DRLPRO	05		X	Re-arrange 18 stands of 2 7/8" drill pipe in derrick to furnish adequate spacing for lay down machine trough		
	4:30	- 6:00	1.50	DRLPRO	11	Α	<b>X</b>	HSM w/ Frank's Westates crew and rig up casing crew and lay down machine, change bail and elevators		
	6:00	- 7:30	1.50	DRLPRO	11	В	X	HSM w/ Frank's Westates casing crew and lay down 10 joints 5 1/2" casing		
	7:30	- 12:00	4.50	DRLPRO	13	C	X	HSM w/ Single Jack, pickup test tools and 1 joint 4 1/2" DP. Make up test tools and run in hole, attempto test and could not get good seal. Open BOP door and found a piece of metal 3 1/4" Wide x 10" Long. Attempt to test again and did not get good seal, pull test plug out and checked XO sub OD, it was the OD was larger than the 7" casing ID. Lay down test plug. Contacted Walt Wills w/ BLM and received verbal approvel on laying down 5 1/2" casing w/o pressure testing BOP		
om til som til med et	12:00	- 18:30	6.50	DRLPRO	11	В	X	Lay down 5 1/2" casing, 30k drag until we were above 2400', no drag above 2400'. Rig down casing crew and change out elevator and bails. ESTIMATED 8.08 OF CASING		
	18:30	- 20:30	2.00	DRLPRO	13	c	X	HSM w/ Single Jack, rig up tester, fill stack and test 2 7/8" ram door seal, 4 1/2" rams, seal between rams and "B" section of wellhead, inside kill, inside choke manifold valve and upper kelly valve to 250 psi for 5 minutes and 3000 psi for 1 minutes, all held. Rig down Single Jack Testers		
C1-522-547-527-535	20:30	- 21:30	1.00	DRLPRO	16	Α		Rig up Slaugh fishing milling and fishing tools. Pick up mill, & jars. Strap 3 1/2 drill pipe & pick up 3 1/2 slips & elevators		

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLIN	NG .			Start Da	te: //30	/2006	End Date:	Spud Date: 8/14/2008
Active Datum: I Level)	RKB @	6,423.00ff	(above Mea	n Sea	UWI: 0	0/13/S/10	/E/20/0/NENE/6/P	M/N/1,142.00/E/0/0/0/0
Date		Time art-End	Duration (hr)	Phase	Code	Subco de2	P/U MD Fro	Operation Operation
	21:30	- 0:00	2.50	DRLPRO	05	A	X	HSM w/ Frank's Lay down crew. Pick up 3 1/2 drill pipe. Picked up 68 jts, 2154' in hole, tagged up around the DV tool. Started reaming through DV tool at 2154' at midnight
10/3/2008		- 5:00	5.00	DRLPRO	16	Α	×	Pickup back up tongs, make up XO sub on top drive. Wash, ream and or mill 2159' - 2591'
erna og stilstensk folkri	5:00	- 9:00	4.00	DRLPRO	16	Α	X Navo 2 do maño do esperado do entre	TIH from 2591' - 4259'
	9:00	- 9:30	0.50	DRLPRO	16	Α	X	Rig down pickup machine
		- 11:30	2.00	DRLPRO	16	Α	X	Ream 4259' - 4502', pushing something down ahead of mill
	11:30	- 13:00	1.50	DRLPRO	16	Α	<b>X</b>	Mill on junk 4502' - 4504'. Stalled out picked up dragging, pulled up to casing and stuck mill in 7" casing shoe
The second secon	13:00	- 16:30	3.50	DRLPRO	16	Α	X	Stuck at casing shoe. Jarring on mill trying to free up
	16:30	- 0:00	7.50	DRLPRO	16	Α	<b>X</b>	Milling on 5 1/2" casing that was left in hole when 5 1/2 casing was pulled, working mill between 4489' - 4504'. Approximately 8.08' long
10/4/2008	0:00	- 2:00	2.00	DRLPRO	16	Α	X	Milling on 5 1/2" casing junk 4489' - 4503'. Returns were heavy w/ metal filing. Worked mill in to casing
	2:00	- 7:30	5.50	DRLPRO	16	Α	X	TOOH, in the process of milling on junk we backed off the skirt off junk sub and had two chunks of 5 1/2" casing wedged between skirt and junk sub body. Junk sub was damaged so no extra iron was
								recovered. NOTE: LAID DOWN 2 JOINTS DRILL PIPE ONE HAD BIG RING GROOVES AROUND THE TUBE, THE OTHER ONE HAD SMALL RIG GROOVES AROUND TUBE. DEPTH IN HOLE WAS 4228' - 4291'
	7:30	- 9:00	1.50	DRLPRO	16	Α	X	Laid down fishing jars, strap, caliper and pickup drilling jars
	9:00	- 9:30	0.50	DRLPRO	06	Α	X	Rig service and inspect coupler between drawwork and traction motor
	9:30	- 15:00	5.50	DRLPRO	16	Α	X	TIH w/ mill, bit sub, 1 joint drill pipe, drilling jars, tagged at 2495', 4275' and 4503'. Ream 4275' - 4503'
	15:00	- 0:00	9.00	DRLPRO	16	Α	×	Milling on junk 4503' - WOB 1-5k, RPM 110, SPM 85, GPM 258, Max torque set at 7. Torque while milling = 3000-6000ft/lbs. @ 2330 hrs running 10k on mill & torque falling off to 2500-2800ft/lbs.
10/5/2008	0:00	- 4:30	4.50	DRLPRO	16	Α	X	Trip out w/ mill. Tight coming up through casing from 4300' to 3900'. Pulling 30-40k over normal drag wt. Mill was cut approx. 2" up beyond cut right into mill body to approx 5 1/4" od. Original mill od was 6 1/8"
	4:30	- 5:00	0.50	DRLPRO	16	Α	X	Break out mill. Pick up new mill, junk basket, & bit sub
er er ver er en	5:00	- 8:30	3.50	DRLPRO	16	Α	X	Trip in hole w/ mill. Tagged something @ 2475' & 4512'
	8:30	- 11:30	3.00	DRLPRO	16	Α	X	Mill from 4512' to 4516'
urea in une existe a lució in la dispo-	11:30	- 14:00	2.50	DRLPRO	16	Α	X	Trip out mll. Tight from 4261' to 3900'. Pulled 60k over @ 4261' and 30-40k over normal drag wt. Had a little bobble coming through 2475'
	14:00	- 15:00	1.00	DRLPRO	16	Α	X	Trip in hole w/ new mill. Tagged something @ 2245
Same Services Comments	15:00	- 17:00	2.00	DRLPRO	16	Α	X	Ream down from 2245' to 2532'. Not making any more hole @ 2532'
	17:00	- 18:30	1.50	DRLPRO	16	Α	×	Trip out to check mill. Break off mill. Mill wore on center & heel. Approx. 2 1/2" wear pattern dead center of mill. Visible 3/4" wear pattern in center of 1/2" wear pattern

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

Level)	KKB @	5,423.00ft	(above Mea	ın Sea	UWI: (	)/13/S/10 	/E/20/0/N	NENE/6/PM/N/1,142.00/E/0/0/0/0
Date	Sta	Fime art-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From Operation (ft)
eran casar to en acua		- 19:00	0.50	DRLPRO	06	Α	Р	Lubricate rig
		- 20:30	1.50	DRLPRO	06	D	P	Slip & cut 74' drilling line
		- 21:30	1.00	DRLPRO	16	A	X	Clear off all used mills from floor. Make up new mill Trip in hole 5 stds
		- 22:00	0.50	DRLPRO	07	Α	Z	Repair rig. Encoder mismatch on rig. Troubleshoot rig. Reset PLC cards & caliberate drawworks
		- 23:00	1.00	DRLPRO	16	Α	Х	Trip in hole to 2532'. Tag something @ 2532'.
		- 23:30	0.50	DRLPRO	16	Α	X	Lay out 1 jt drill pipe. Install crossover sub. Change out 3 1/2 rental elevators.
	23:30	- 0:00	0.50	DRLPRO	16	Α	Х	Tag junk & begin reaming @ 2532'. 1-3k on bit. Pumping 315 gpm @ 750 psi. 1000-3000ft/lbs torque on top drive.
10/6/2008	0:00	- 0:30	0.50	DRLPRO	16	Α	X	Tagged at 2533' - 2535', mill through tight spot w/ WOB 2, RPM 100, Pump #2 70 SPM, GPM 315, Torque 1, SPP 748
·乔思斯,是2016年2月2日 (1975年)。	0:30	- 2:30	2.00	DRLPRO	16	Α	Χ	TIH
		- 7:00	4.50	DRLPRO	16	Α	Х	Mill 4491' - 4518', WOB 2, RPM 100, Pump #2 70
		- 11:00	4.00	DRLPRO	05	Α	₹ <u>₹</u>	SPM, GPM 315, Torque 2-5k, PSI 1442 TOOH, laid down 2 joints, tight 4490' - 3900' drag 40k, 3900' - 2480' drag 20k. Break out mill and junk basket. Recovered 1 chunk iron 1/2" to 3/4" wide b 1 1/2" long, it was stuck in mill
	11:00	- 11:30	0.50	DRLPRO	06	Α	Р	Rig Service
uur on Tilder Takku va di 350 km.	11:30	- 14:00	2.50	DRLPRO	05	Α	X	Make up mill #6, junk basket, 1 - jt drill pipe, drilling jars, xo sub, junk basket, xo sub and TIH w/ remainder of drill string
	14:00	- 16:00	2.00	DRLPRO	05	Α	X	Work through tight spots at 2160', 2316', 2410', 2471'. Wash and ream 2160' - 2480'
And the second second second	16:00	- 17:30	1.50	DRLPRO	05	Α	Χ	TIH
	17:30	- 18:00	0.50	DRLPRO	03	E	Χ	Wash and ream 4301' - 4310'
een van de van van de van d Van de van de	18:00	- 19:00	1.00	DRLPRO	05	Α	X	Finsh tripping in hole. Tripping slow taking 15-30k going in hole from 4310' to 4506'
	19:00	- 22:00	3.00	DRLPRO	16	Α	X	Mill from 4506' to 4519.6'. Start out milling w/ 1/4k on mill. Pumping 315 gpm. 100 rpm on top drive. 2000-4000 ft/lbs torque. At 2100 hrs. running 15k o mill w/ 3500-4000 ft/lbs of torque - not making any progress. Pump high vis sweep around.
und personal of the letter direction for	22:00	- 0:00	2.00	DRLPRO	05	Α	X	Trip out w/ mill. 30-40k overpull from 4300' to 4000' 10-20k overpull from 4000' to 3300'.
10/7/2008		- 1:30	1.50	DRLPRO	05	Α	X	TOOH w/ mill #6
	1:30	- 2:30	1.00	DRLPRO	05	Α	X	Break out & clean junk baskets. Laid down mill and pickup magnet run #1
	2:30	- 5:00	2,50	DRLPRO	05	Α	X	TIH w/ magnet run #1, tagged at 4518'
	5:00	- 5:30	0.50	DRLPRO	16	Α	X	Work magnet 4490' - 4519'
	5:30	- 9:00	3.50	DRLPRO	05	Α	X	TOOH w/ magnet run #1. Break off magnet and junk basket and clean same. Recovered fair amount of junk
s ( Remail: Better <b>W</b> E	9:00	- 12:00	3.00	DRLPRO	05	Α	X	Make up magnet and junk baskets and TIH w/ magnet run #2, tagged bridges at 2472' & 3428'
<b>是四周数据</b>	12:00	- 13:00	1.00	DRLPRO	16	Α	Χ	Work magnet and junk subs 4490' - 4519'
* 1700 p. 4		- 15:30	2.50	DRLPRO	05	Α	X	TOOH w/ magnet run #2. Break off magnet & junk baskets and clean. No tight spots on trip out
	15:30	- 16:00	0.50	DRLPRO	06	Α	P	Rig Service
in an entry of the same with the	16:00	- 18:30	2.50	DRLPRO	07	Α	Р	Dock top drive and power down PLC's, swap electrical wires on generators, power up PLC's, un-dock top drive. Align traction motors on draw works

10/27/2008

3:58:58PM

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

**Event: DRILLING** Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

Active Datum: RKB @6,423.00ft (above Mean Sea Level)						UWI: 0/13/S/10/E/20/0/NENE/6/PM/N/1,142.00/E/0/0/0/0							
Date		Fime .	Duration	Phase	Code	Subco	P/U MD From	Operation					
		irt-End	(hr)	DDIDDO		de2	(ft)						
o Sudane da Neralia da		- 19:00	0.50	DRLPRO	05	Α	X P <del>yran</del> es a basines in Levi	Pickup magnet and junk subs					
	N 2011 (1984)	- 21:00	2.00	DRLPRO	05	A		TIH w/ magnet run #3					
ani, kitokapiy kiliyo opi kilopeta		- 22:30	1.50	DRLPRO	16	Α	X	Work magnet and junk baskets from 4519' - 4434'					
		- 0:00	1.50	DRLPRO	05	Α	×	TOOH w/ magnet run #3					
10/8/2008		- 1:00	1.00	DRLIN1	16	Α	P	TOH W/MAGNET & JUNK BASKETS, BREAK OFF & CLEAN					
		- 4:30	3.50	DRLIN1	05	Α	P	TIH W/MAGNET & JUNK BASKETS, RUN # 5					
	4:30	- 5:30	1.00	DRLIN1	16	Α	Р	WORK MAGNET & JUNK BASKETS F/4343 T/4519, RPM 50, SPM 75, PSI 2140, GPM 336					
	5:30	- 9:00	3,50	DRLIN1	05	Α	P	TOH W/MAGNET & JUNK BASKETS, BREAK OFF & CLEAN					
	9:00	- 12:00	3.00	DRLIN1	05	Α	P	MAKE UP MAGNET, 1 JT DP, DBL PIN, JUNK BASKET, BIT SUB, JARS, DBL. PIN, 2 JUNK BASKETS, BIT SUB, TIH, ( BRIDGE @ 3497 )					
	12:00	- 13:00	1.00	DRLIN1	04	Α		WORK MAGNET & JUNK BASKETS F/4343 T/4519, RPM 50, SPM 75, PSI 2140, GPM 33					
eria di la	13:00	- 15:30	2.50	DRLIN1	05	Α	P	TOH W/MAGNET & JUNK BASKETS, BREAK OFF & CLEAN					
	15:30	- 18:00	2.50	DRLIN1	05	Α	<b>. P</b> . (1994)	TIH W/MAGNET & JUNK BASKETS, RUN #6					
5 - 14 1-50. The Art (44.5)		- 19:00	1.00	DRLIN1	16	Α	P	WORK MAGNET & JUNK BASKETS F/4343 T/4519, RPM 50, SPM 75, PSI 2140, GPM 338					
	19:00	- 21:00	2.00	DRLIN1	05	Α	<b>p</b>	TOH W/MAGNET & JUNK BASKETS, BREAK OFF & CLEAN					
(왕왕, 기) 박기 다가 되다	21:00	- 22:00	1.00	DRLIN1	05	Α	<b>P</b>	REPLACE SHOE ON MAGNET, MAKE UP JUNK BASKETS					
	22:00	- 0:00	2.00	DRLIN1	05	Α		TIH W/MAGNET & JUNK BASKETS, RUN #7					
10/9/2008		- 1:00	1.00	DRLIN1	16	Α	P	WORKING MAGNET & JUNK SUBS, F/4460 T/4519, RPM 50, SPM 75, PSI 2140, GPM 338					
Seattle and th	1:00	- 2:30	1.50	DRLIN1	05	Α	April District	TOH W/MAGNET & JUNK BASKETS					
nga asgan Ing in 1940	1 4 4 5 TA 50 TA	- 4:00	1.50	DRLIN1	05	Α	P	LAY DOWN JUNK BASKETS & CLEAN, PICK BACK UP JUNK BASKETS & MAGNET.					
	4:00	- 6:00	2.00	DRLIN1	05	Α	P	RETRIEVED 8# OF IRON ON RUN #7 TIH W/MAGNET & JUNK BASKETS, STRING					
	6:00	- 7:00	1.00	DRLIN1	16	Α	P	TOOK WT. @ 2534. RUN #8  WORKING MAGNET & JUNK SUBS, F/4460					
	7:00	- 10:00	3.00	DRLIN1	05	Α	P 1	T/4519, RPM 50, SPM 75, PSI 2140, GPM 338 LAY DOWN JUNK BASKETS & CLEAN, PICK BACK UP JUNK BASKETS & MAGNET.					
								RETRIEVED 3# OF IRON ON RUN #8					
	10:00	- 11:00	1.00	DRLIN1	05	Α	P	L/D FISHING TOOLS					
	11:00	- 11:30	0.50	DRLIN1	06	Α	. P	LUBRICATE RIG					
	11:30	- 19:30	8.00	DRLIN1	05	Α	P	MAKE UP NEW BHA W/ TO DRILL RATHOLE & TIH					
	19:30	- 21:30	2.00	DRLIN1	09	D	* <b>P</b>	RAN GAMMA SURVEY F/4380 T/4519					
a the Arman Section And Additional		- 22:00	0.50	DRLIN1	16	Α	P	WORKING JUNK BASKETS ON BOTTOM BEFORE DRILLING					
	22:00	- 0:00	2.00	DRLIN1	02	С	P	DRLG F/4519 T/4528, WOB 16K, RPM 60, SPP 1765, GPM 338					
10/10/2008	0:00	- 10:00	10.00	DRLPRO	02	С	P	DRLG F/4528 T/ WOB 16K, RPM 60, SPM 75, SPP 1765, GPM 338					
	10:00	- 11:00	1.00	DRLPRO	04	Α	P	CIRC. & CONDD. HOLE @ 4565 WORKING JUNK BASKETS					
4 m 1 5 1 40 1 1 1 1 2 1 1 2 1 1 2 1 1 1 1 1 1 1 1	11:00	- 13:30	2.50	DRLPRO	05	D	kuma sakatibat nakantitukan P	TOH TO RUN PARASITE STRING					
		- 16:00	2.50	DRLPRO	05	Ā	P S S S S S S S S S S S S S S S S S S S	LAY DOWN DIR. TOOLS & REST OF BHA					
		- 18:00	2.00	DRLPRO	11	Α	P	HSM WITH CASERS L/D MACHINE, & RIG UP TO RUN PARASITE STRING					

UCT 2 8 2008

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

Active Datum: Level)	RKB @6,423.00i	t (above Mea	an Sea	UWI: 0	0/13/S/10	/E/20/0/NENE/6/PM/N	l/1,142.00/E/0/0/0/0
Date	Time Start-End	Duration Phase (hr)		Code	Subco de2	P/U MD From (ft)	Operation
	18:00 - 0:00	6.00	DRLPRO	11	A	P	HSM WITH CASERS & L/D MACHINE, RUN 5 1/2 17# CSG. PARASITE STRING
10/11/2008	0:00 - 3:00	3.00	DRLIN1	11	В	P	RUNNING 5 1/2 17# PARASITE STRING 100 JTS LANDED @ 4279 PACKED OFF, TESTED
	3:00 - 4:00	1.00	DRLIN1	11	Α	Р	RIG DOWN L/D MACHINE & CSG EQUIPMENT
	4:00 - 6:00	2.00	DRLIN1	06	D	P	SLIP & CUT DRILLING LINE, CALIBRATE TOP DRIVE, CHANGE ELEVATOR BAILS & ELEVATORS, CHANGE OIL IN TOP DRIVE
	6:00 - 6:30	0:50	DRLIN1	06	Α	Р	RIG SERVICE
	6:30 - 14:30	8.00	DRLIN1	05	Α	P	PICK UP DIRECTIONAL TOOLS AND AJUST MOTOR TO 1.37 DEG. TRIP IN HOLE SLOW DUE TO WIND.
	14:30 - 15:00	0.50	DRLIN1	04	G	P	DISPLACE HOLE WITH AIR DOWN DP WITH 1500 CFM AT 2404'
	15:00 - 17:30	2.50	DRLIN1	05	Α	P	TRIP IN HOLE SLOW. PUT 30 STDS BELOW DC AND RAN 16 STDS DC ON TOP.
	17:30 - 18:30		DRLIN1	04		P	DISPLACE HOLE WITH AIR DOWN DP WITH 1500 CFM AT 4504', 230 GPM
	18:30 - 20:00	1.50	DRLIN1	03	E		WASH TO BTM. @ 4565, SPM 37, GPM 118, CFM 500, GPM 76, RPM 10, MTR RPM 156
	20:00 - 20:30	0.50	DRLIN1	07	Α	X	CHANGE OUT GASKET ON PASON FLOW SENSOR
	20:30 - 21:30	1.00	DRLIN1	02	C	<b>P</b>	DRLG ROTATE F/4565 T/4567, WOB 4K, CFM 500 GPM 76, SPM 37, GPM 118, MTR RPM 156, SLIDE F/4567 T/4571 ON CONN. SHUT OFF AIR ON PARASITE STRING
evite mentum tu keut kita est	21:30 - 0:00	2.50	DRLIN1	02	С	P	DRLG ROTATE F/4571T/4596, WOB 4K, CFM 500 GPM 76, SPM 37, GPM 118, MTR RPM 156, SLIDE F/4596 T/4600 ON CONN. SHUT OFF AIR ON PARASITE STRING
10/12/2008	0:00 - 1:00	1,00	DRLIN1	02	C	P	DRLG F/4600 T/4603, WOB 6K, CFM 500 GPM 76, SPM 37 GPM 118, RPM 15 MUD MTR RPM 156, SHUT AIR OFF ON CONN.
	1:00 - 6:00	5.00	DRLIN1	05	Α	P	TRIP FOR BIT. INSPECT BIT AND MOTOR.
	6:00 - 7:00	1.00	DRLIN1	06	Α	P	CLEAN UP TRIPPING HAZARDS ON FLOOR & RIG SERVICE
	7:00 - 11:30	4.50	DRLIN1	05	Α	P	CHANGE OUT BIT, MUD MTR. & UBHO SUB TEST MM, ( UBHO SUB WAS LEAKING @ SET SCREW), SCRIBE MM
	11:30 - 14:00	2.50	DRLIN1	05	Α	P	TIH TO 2411, DISPLACE HOLE WITH AIR W/1500 CFM
	14:00 - 15:00	1.00	DRLIN1	05	Α	P	TIH TO 4512
	15:00 - 16:00	1.00	DRLIN1	04	Α	P	DISPLACE HOLE W/AIR @ 4512. ESTABLISH CIRC., W/120 GPM DOWN PIPE, 500 CFM 76 GPM ON PARASITE STRING
	16:00 - 16:30	0.50	DRLIN1	03	Ε	Р	WASH F/4512 T/4603 CLEANING UP BOTTOM
	16:30 - 19:00	2.50	DRLIN1	02	Ċ	P	DRLG ROTATE F/4603 T/4605, WOB 2/11, RPM 20/30, RPM M/M 156, CFM 500, GPM 76, SPM 37, GPM 118, SPP ON/OFF 1550/1400, TORQUE ON/OFF 1/1K. SLIDE F/4605T/4613
	19:00 - 20:00	1.00	DRLIN1	12	E	P	LOST GAMMA SIGNAL WITH WEATHERFORD, CHECKED OUT SYSTEM, REGAINED SIGNAL
	20:00 - 0:00	4.00	DRLIN1	02	C	P	DRLG ROTATE F/4603 T/4700, WOB 2/11, RPM 20/30, RPM M/M 156, CFM 500, GPM 76, SPM 37, GPM 118, SPP ON/OFF 1550/1400, TORQUE ON/OFF 1/1K. LOSING MUD @ 4688 INCREASED CFM TO 1200, 184 GPM

Patagram

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

Active Datum: F Level)	RKB @	5,423.00ft	(above Mea	n Sea	UWI: (	UWI: 0/13/S/10/E/20/0/NENE/6/PM/N/1,142.00/E/0/0/0/0							
Date	<b>福达尼亚岛及北部市</b>	ime irt-End	Duration (hr)	Phase	Code	Subco de2	P/U I	MD From (ft)	Operation				
10/13/2008	277 2222 400 500 500	- 8:29	0.02	DRLIN1	02	C	P		DRLG F/4851 T/4855 WOB 10K, RPM 20, RPM M/M 156, CFM 1200, GPM 184, SPM 37, GPM119, SPP ON/OFF 1460/1350, TORQUE ON/OFF 1.5/1K				
		- 8:29	0.00	DRLIN1	09	С	P		DRLG F/4700 T/4851 WOB 10K, RPM 20, RPM M/M 156, CFM 1200, GPM 184, SPM 37, GPM119, SPP ON/OFF 1460/1350, TORQUE ON/OFF 1.5/1K SLIDE TOTAL OF 14'				
		- 17:00	0.00	DRLIN1					"C B,,\\ 'LL				
		- 18:00	1.00	DRLIN1	04	Н	P		ATTEMPT TO AIREATE ANNULAR				
		- 17:00	0.00	DRLIN1									
		- 19:30	1.50	DRLIN1	05	F	Р		TOH TO 2982				
		- 20:00	0.50	DRLIN1	04	G	P		UNLOAD HOLE @ 2982 WITH AIR				
	20:00	- 21:00	1.00	DRLIN1	05	F	Р		TIH TO 4448				
	21:00	- 22:00	1.00	DRLIN1	04	Н	P		UNLOAD HOLE @ 4448 WITH AIR				
	22:00	- 22:30	0.50	DRLIN1	04	Α	Р		FILL PIPE & ANNULAR W/MUD, BREAK CIRC.				
	22:30	- 23:30	1.00	DRLIN1	05	F	P		TIH F/4448 T/4851				
10/14/2008	0:00	- 6:00	6.00	DRLIN1	02	С	Р		DRLG F/4855 T/5050 WOB 11, SPM 37, GPM 119, CFM 1200, GPM 184, DOWN PARASITE STRING, RPM 20, M/M RPM 158, TORQUE ON/OFF 1.5/1K, SPP ON/OFF 1250/1200				
	6:00	- 21:30	15.50	DRLIN1	02	Ċ	P		DRLG F/5050 T/5077 WOB 11, SPM 12, GPM 38, CFM 500, GPM 76, DOWN DRILL PIPE, RPM 20, M/M RPM 158, TORQUE ON/OFF 1.5/1K, SPP				
									ON/OFF 520/480				
	21:30	- 0:00	2.50	DRLIN1	02	С	Р		DRLG F/5050 T/5077 WOB 11, SPM 18, GPM 57, CFM 400, GPM 61, DOWN DRILL PIPE, RPM 20, M/M RPM 158, TORQUE ON/OFF 1.5/1K, SPP ON/OFF 520/480				
10/15/2008	0:00	- 2:30	2.50	DRLIN1	13	В	P		RIG UP & PRESSURE TEST AIR EQUIPMENT FOR RUNNING AIR DOWN DP & AIR DOWN PARASITE STRING				
	2:30	- 8:00	5.50	DRLIN1	02	С	P		DRLG F/5077 T/5176 WOB 11, RPM 25, RPM M/M 158 SPM 30, GPM 96, CFM D/DP 150, GPM 23,CFM D/PARASITE 350, GPM 53, SPP 825,TORQUE 1.8K				
	8:00	- 18:00	10.00	DRLIN1	02	C	P		DRLG F/5176 T/5280 WOB 11, RPM 25, RPM M/M 158 SPM 30, GPM 96, CFM D/DP 150, GPM 23,CFM D/PARASITE 350, GPM 53, SPP 1070				
									,TORQUE 2.1K				
		- 8:00	0.00	DRLIN1	06	A	Р		LUBRICATE RIG				
	4.0	- 19:00	1.00	DRLIN1	07	Α	Χ		CHANGE OUT 2" GATE VALVE ON STAND PIPE				
	19:00	- 0:00	5.00	DRLIN1	02	С	Р		DRLG F/5280 T/5347 WOB 11, RPM 25, RPM M/M 158 SPM 30, GPM 96, CFM D/DP 150, GPM 23,CFM D/PARASITE 350, GPM 53, SPP 1070 ,TORQUE 2.1K				
10/16/2008	0:00	9:00	9.00	DRLIN1	02	C	P		DRLG F/5347 T/5456 WOB 11, RPM 25, RPM M/M 158, SPM 30, GPM 96, CFM D/DP 150, GPM 23, CFM D/PARASITE 350, GPM 53, SP 1070, TORQUE 2.1K				
er en en en en en samme en	9:00	- 9:30	0.50	DRLIN1	06	Α	Р	* * **	LUBRICATE RIG				
	9:30	- 17:00	7.50	DRLIN1	02	C	P		DRLG F/5456 T/5554 WOB 11, RPM 25, RPM M/M 158, SPM 27, GPM 86, CFM D/DP 200, GPM 30, CFM D/PARASITE 500, GPM 76, SP 1070, TORQUE 2.1K				
	17:00	- 18:00	1.00	DRLIN1	16	D	X		TROUBLE SHOOT MWD TOOL				
		- 21:30	3.50	DRLIN1	05	us (Total)	X	French of home	TOH FOR MWD TOOL				

ON OF THE SIE & WINDER

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

event: DRILLI			Start Da	ite: //30	/2008	End Date:	Spud Date: 8/14/2008		
Active Datum: _evel)	RKB @6,423.00	oft (above Mea	an Sea	UWI: (	D/13/S/10	/E/20/0/NENE/6/PM/N	1,142.00/E/0/0/0/0		
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U MD From (ft)	Operation		
	21:30 - 23:00		DRLIN1	05	A	Р	LAY DOWN DIRECTIONAL TOOLS, BIT & MUD MTR.		
	23:00 - 0:00	1.00	DRLIN1	05	Α	Р	PICK UP NEW MUD MTR, BIT & SCRIBE DIRECTIONAL TOOL		
10/17/2008	0:00 - 2:00	2.00	DRLIN1	05	Α	P	FINISH PROGRAMMING DIRECTIONAL TOOL, TIH TO 2500 & UNLOAD HOLE WITH AIR DOWN DP.		
	2:00 - 4:00		DRLIN1	05	Α	Р	TIH TO 4300 & UNLOAD HOLE WITH AIR DOWN DP& PARASITE STRING		
	4:00 - 6:00		DRLIN1	05	Α	Р	FINISH TIH TO BOTTOM & BREAK CIRC.		
	6:00 - 16:30 16:30 - 17:00		DRLIN1 DRLIN1	02 06	C A	P	DRLG ROTATING F/5554 T/5647, WOB 11, RPM 25, RPM M/M 158, CFM DP 200, GPM 30, CFM PARASITE 680, GPM 104,SPP 950, TORQUE 2.11 LUBRICATE RIG		
	17:00 - 0:00			02	Ĉ	P	DRLG ROTATING F/5647 T/5688, WOB 11, RPM		
	17.00 - 0:00	7.00	DRLIN1	02	C	P	25, RPM M/M 158, CFM DP 200, GPM 30, CFM PARASITE 680, GPM 104,SPP 950, TORQUE 2.11		
10/18/2008	0:00 - 14:0	14.00	DRLIN1	02	С	Р	DRLG F/ 5688 T5814/WOB 11, RPM 25, RPM M/N 158, SPM 28, GPM 89, CFM DP 200, GPM 30, CFM PARASITE 680, GPM 104, SPP 1050, TORQUE 2.1K		
	14:00 - 19:00		DRLIN1	05	Α	Р	TRIP OUT. L/D DIRECTIONAL GAMMA TOOL AND CHECK MOTOR AND BIT.		
	19:00 - 0:00	5.00	DRLIN1	05	Α	Р	MAKE UP TOOLS AND TRIP IN.		
10/19/2008	0:00 - 1:30	1.50	DRLPRO	05	Α	Р	TRIP IN TO 4426'		
	1:30 - 2:30	1.00	DRLPRO	06	D	Р	SLIP AND CUT DRILLING LINE.		
	2:30 - 3:00	0.50	DRLPRO	05	Α	Р	TRIP IN TO 5112'		
	3:00 - 6:00		DRLPRO	02	G	Р	TROUGH HOLE FOR SIDETRACK #1 AT 5113' (OPEN HOLE SIDETRACK)		
	6:00 - 20:3		DRLPRO	02	G	P	TIME DRILL F/5113'-5137		
	20:30 - 0:00		DRLPRO	05	A	P _	TRIP OUT AND AJUST MOTOR TO 2.00 DEG. CHANGE BITS		
10/20/2008	0:00 - 3:30		DRLPRO	05	A	P -	AJUST MOTOR TO 2.00 DEG. TRIP IN HOLE.		
	3:30 - 5:00		DRLPRO	03	E	Р	WASH F/4571-5081 DRAGGING WALL.		
	5:00 - 6:00		DRLPRO		G	Р	TROUGH AT 5113'		
	6:00 - 13:3	7.50	DRLPRO	02	G	Р	TIME DRILL AT 5113'-5120' WOB 5-10, PSI 1340, CFM 700 PARASITE AT 1000 PSI. 2 ATTEMPT TO SIDETRACK WITH LEGDES BREAKING OFF. TOOL FACE AT 80-90 RIGHT.		
	13:30 - 0:00	10.50	DRLPRO	02	G	Р	TIME DRILL AT 5080 TO 5092' WOB 5-10, PSI 1340, CFM 700 PARASITE AT 1000 PSI. 2 ATTEMPT TO SIDETRACK WITH LEGDES BREAKING OFF. GOT UP TO 19 WOB ON 2ND ATTEMPT. WORKING ON 3RD ATTEMPT. TOOL FACE AT 105-120 RIGHT.		
10/21/2008	0:00 - 9:30	9.50	DRLPRO	02	G	Р	TIME DRILL AT 5080 TO 5092', 5140-5145' WOB 5-10, PSI 1340, CFM 700 PARASITE AT 1000 PS 2 ATTEMPT TO SIDETRACK WITH LEGDES BREAKING OFF. GOT UP TO 19 WOB ON 2ND ATTEMPT. WORKING ON 3RD ATTEMPT. TOOL FACE AT 105-120 RIGHT.		
	9:30 - 10:0	0.50	DRLPRO	05	Α	Р	TRIP IN TO CASING.		
	10:00 - 11:0	1.00	DRLPRO		Α	Р	RIG SERVICE		
	11:00 - 14:0	3.00	DRLPRO	05	Α	Р	TRIP OUT PULL MWD TOOL, BREAK BIT AND CLEAN UP FLOOR		

10/27/2008 3:58:58PM 0CT 2 8 2968 29

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

Event: DRILLII	1G			Start Da	te: 7/30	/2008	End Date:	Spud Date: 8/14/2008			
Active Datum: Level)	RKB @	6,423.00ft	(above Mea	an Sea	Sea UWI: 0/13/S/10/E/20/0/NENE/6/PM/N/1,142.00/E/0/0/0/0						
Date		Γime art-End	Duration (hr)	Phase	Code	Subco de2	P/U MD Fro	m Operation			
	14:00	- 19:30	5.50	DRLPRO	13	С	P	TEST BOPE TESTED 250 LOWFOR 5 MINS. AND 3000 PSI FOR HIGH FOR 10 MINS. ON ALL VALVES, PIPE RAMS, BLIND RAMS. TEST ALL CHOKE LINES AND VALVES AND FLOOR VALVES. TESTED ANNULAR TO 1700 PSI. RAN ACCUM. TEST.			
	19:30	- 0:00	4.50	DRLPRO	05	Α	Р	ADJUST MUD MOTOR FROM 2.00 DEG TO 1.37 DEG MAKE UP DIRECTIONALS TOOLS AND ORIENT. TRIP IN			
10/22/2008	0:00	- 1:00	1.00	DRLPRO	05	Α	P (6) (4) (5) (5)	TRIP IN BELOW SHOE AND BLOW DOWN WELL.			
	1:00	- 2:00	1.00	DRLPRO	05	Α	P	TRIP IN WASH 60' TO BTM. NO TIGHT SPOTS.			
		- 3:00	1.00	DRLPRO	02	Ď	P	DRILLING F/5814-5819 WOB 2-10, 200 CFM DOWN DP, 700 ON PARASITE, 120 GPM, 25 RPM 159 RPM ON MTR, PSI OWOFF 850/700, TORQUE OWOFF 3/1			
1 2 1 34 1 2	3:00	- 5:30	2.50	DRLPRO	02	D	P	SLIDE DRILLING F/5819-5830 WOB 25, 200 CFM, 700 CFM ON PARASITE, 120 GPM, PSI ON/OFF 950/850,			
	5:30	- 6:00	0.50	DRLPRO	02	D	P	DRILLING F/5830-5840 WOB 2-10, 200 CFM DOWN DP, 700 ON PARASITE, 120 GPM, 25 RPM 159 RPM ON MTR, PSI ON/OFF 850/700, TORQUE ON/OFF 3/1			
Control of the Control of the Control	6:00	- 9:00	3.00	DRLPRO	02	D	P	SLIDE DRILLING F/5840- 5847 WOB 25, 200 CFM, 700 CFM ON PARASITE, 120 GPM, PSI ON/OFF 950/850,			
	9:00	- 10:30	1.50	DRLPRO	02	D	P	DRILLING F/5847- 5871' WOB 2-10, 200 CFM DOWN DP, 700 ON PARASITE, 120 GPM, 25 RPM 159 RPM ON MTR, PSI ON/OFF 850/700, TORQUE ON/OFF 3/1			
	10:30	- 12:30	2.00	DRLPRO	02	D	P	SLIDE Drilling 5871' - 5878', WOB 5-15K, GPM= 116 PUMP # 1 = 27, SPM = PUMP #2 = 0 SPM, RPM = 0, MOTOR RPM = 159, PRESS ON OFF, BTM = 960 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 950 TORQUE ON / OFF BTM = OK, MUD WT = 8.6 VIS = 35, FOOTAGE = 7', FPH = 3.5, TOOL FACE =			
	12:30	- 14:30	2.00	DRLPRÓ	02	Đ	P	ROTATE Drilling 5878' - 5913', WOB 5-15K, GPM= 116 PUMP # 1 = 27, SPM = PUMP #2 = 0 SPM, RPM = 0, MOTOR RPM = 159, PRESS ON OFF, BTM = 960 PSI, DOWN PARASITE = 700, PARASITE PSI = 950 TORQUE ON / OFF BTM = OK, MUD WT = 8.6, VIS = 35, FOOTAGE = 35', FPH = 17.5,			
n an tha nin tu di William an Tab	14:30	- 17:00	2.50	DRLPRO	02	D	P	SLIDE Drilling 5913' -5916', WOB 5-15K, GPM= 116 PUMP # 1 = 27, SPM = PUMP #2 = 0 SPM, RPM = 0, MOTOR RPM = 159, PRESS ON OFF, BTM = 960 PSI , SCFM DOWN PARASITE = 700, PARASITE PSI = 950 TORQUE ON / OFF BTM = OK, MUD WT = 8.6 VIS = 35, FOOTAGE = 3', FPH = 1.2 , TOOL FACE = 10L			
	17:00	- 18:30	1.50	DRLPRO	02	D	P	ROTATE Drilling 5916' - 5931', WOB 5-15K, GPM= 116 PUMP # 1 = 27, SPM = PUMP #2 = 0 SPM, RPM = 0, MOTOR RPM = 159, PRESS ON OFF, BTM = 960 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 950 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.VIS = 35, FOOTAGE = 15', FPH = 10,			
and the second of the second s	18:30	- 19:30	1.00	DRLPRO	06	Α	Р	LUBERCATE RIG, AND CHANGE OUT GASKET ON FLOW SENSOR			

OCT 28 2008

10/27/2008 3:58:58PM

30

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298 Event: DRILLING Start Date: 7/30/2008 Spud Date: 8/14/2008

End Date:

Active Datum: Level)	RKB @	6,423.00ft	(above Me	an Sea	UWI: 0	)/13/S/10	)/E/20/0/NENE/6/PM/N	I/1,142.00/E/0/0/0/0
Date	PERSONAL PROPERTY OF THE	Fime art-End	Duration (hr)	Phase	Code	Subco de2	P/U MD From (ft)	Operation
		- 20:00	0.50	DRLPRO	02	D	P	ROTATE Drilling 5931' - 5935', WOB 5-15K, GPM= 222 PUMP # 1 = 27, SPM = PUMP #2 = 0 SPM, RPM = 0, MOTOR RPM = 159, PRESS ON OFF, BTM = 960 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 950 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.VIS = 35, FOOTAGE = 4', FPH = 2,
	20:00	- 23:30	3.50	DRLPRO	02	Ď	P	SLIDE Drilling 5935' -5938', WOB 5-15K, GPM= 222 PUMP # 1 = 27, SPM = PUMP #2 = 0 SPM, RPM = 0, MOTOR RPM = 159, PRESS ON OFF, BTM = 960 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 950 TORQUE ON / OFF BTM = OK, MUD WT = 8.6 VIS = 35, FOOTAGE = 3', FPH = .86, TOOL FACE = 20R
	23:30	- 0:00	0.50	DRLPRO	02	D	Р	ROTATE Drilling 5938' - 5939', WOB 5-15K, GPM= 222 PUMP # 1 = 27, SPM = PUMP #2 = 0 SPM, RPM = 0, MOTOR RPM = 159, PRESS ON OFF, BTM = 960 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 950 TORQUE ON / OFF BTM = OK, MUD WT = 8.VIS = 35, FOOTAGE = 1', FPH = 2,
10/23/2008	0:00	- 1:00	1.00	DRLPRO	02	A	<b>P</b>	Rotate Drilling 5939' - 5943', WOB 5-15K, GPM= 120 PUMP # 1 = 28, SPM = PUMP #2 = 0 SPM, RPM = 25, MOTOR RPM = 160, PRESS ON OFF, BTM = 960 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 950 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.VIS = 35, FOOTAGE = 4', FPH
	1:00	- 2:00	1.00	DRLPRO	02	C	P	= 4, Slide Drilling 5943' - 5944', WOB 20-25K, GPM= 120 PUMP # 1 = 28, SPM = PUMP #2 = 0 SPM, RPM = 25, MOTOR RPM = 160, PRESS ON OFF, BTM = 1000/1200 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 950 TORQUE ON / OFF BTM = 0K, MUD WT = 8.VIS = 35, FOOTAGE = 1', FPH = 1, TOOL FACE 20R
	2:00	- 5:30	3.50	DRLPRO	05	Α	P	TOOH at 5944' to inspect mud motor
	5:30	- 6:00	0.50	DRLPRO	05	Α	P	Drain mud motor and inspect bit, laid down motor
	6:00	- 14:30	8.50	DRLPRO	05	Α	P	Pickup mud motor and check. TIH to 3871'. Unload hole w/ 700 scfm air. TIH to 4680'. Unload hole. TIH to 5871'
	14:30	- 15:00	0.50	DRLPRO	03	D	Р	Wash and ream 5871' - 5950'
	15:00	- 16:30	1,50	DRLPRO	02	A	P	Slide Drilling 5944' - 5950', WOB 30-34K, GPM= 120 PUMP # 1 = 28, SPM = PUMP #2 = 0 SPM, RPM = 25, MOTOR RPM = 160, PRESS ON OFF, BTM = 1093 PSI, SCFM DOWN PARASITE = 1000, PARASITE PSI = 860 TORQUE ON / OFF BTM = 0K, MUD WT = 8.VIS = 35, FOOTAGE = 6', FPH = 4, TOOL FACE 2L
ermanistrania (1997), et 1997,	16:30	- 18:00	1.50	DRLPRO	02	D	P .	Rotate Drilling 5950' - 5960', WOB 10K, GPM= 120 PUMP # 1 = 28, SPM = PUMP #2 = 0 SPM, RPM = 25, MOTOR RPM = 160, PRESS ON OFF, BTM = 960 PSI, SCFM DOWN PARASITE = 1000, PARASITE PSI = 860 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.VIS = 35, FOOTAGE =18', FPH = 10,



## **Operation Summary Report**

Well: BLACKHAWK A-5H

Event: DRILLING

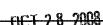
Project: UTAH Rig Name No: H&P 298/298 Site: CARBON

End Date:

Spud Date: 8/14/2008

Start Date: 7/30/2008

Active Datum: RKB @6,423.00ft (above Mean Sea Level)						,, 10,0, 10	/E/20/0/NE	
Date	514 (Sept.)	ime rt-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From Operation (ft)
		- 19:00	1.00	DRLPRO	02	D	P	Rotate Drilling 5960' - 5968', WOB 10K, GPM= 120 PUMP # 1 = 28, SPM = PUMP #2 = 0 SPM, RPM = 25, MOTOR RPM = 160, PRESS ON OFF, BTM = 960 PSI, SCFM DOWN PARASITE = 1000, PARASITE PSI = 860 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.VIS = 35, FOOTAGE =18', FPH = 8,
	19:00	- 21:30	2.50	DRLPRO	05	Α	P	TOOH TO REPLACE 3-3/4 MUD MOTOR AND BIT
	21:30	- 22:30	1.00	DRLPRO	05	Α	Р	BREAK BIT L/D M/M PICKUP NEW MUD MOTOR
	22:30	- 0:00	1.50	DRLPRO				PULL MWD TOOL CHANGE OUT BATTERY AND CALLABRATE TOOL
10/24/2008	0:00	- 2:30	2.50	DRLPRO	05	Α	Р	TIH TO 4585'
	2:30	- 3:30	1.00	DRLPRO	04	Α	Р	BLOW DOWN HOLE W/700 SCFM
	3:30	- 5:30	2.00	DRLPRO	05	Α	Р	TIH 4580' TO 5745', Tight at 5350', 5630', 5695'
	5:30	÷ 6:00	0.50	DRLPRO	02	D	P	Rotate Drilling 5968' - 5973', WOB 2-6K, GPM= 128 PUMP # 1 = 30, SPM = PUMP #2 = 0 SPM, RPM = 25, MOTOR RPM = 185, PRESS ON OFF, BTM = 1050 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 960 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.4, VIS = 35, FOOTAGE = 5', FPH = 10,
	6:00	- 8:00	2.00	DRLPRO	02	D	Р	Slide Drilling 5973' - 5983', WOB 6K, GPM= 124 PUMP # 1 = 29, SPM = PUMP #2 = 0 SPM, RPM =25, MOTOR RPM = 185, PRESS ON OFF, BTM = 1140 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 960 TORQUE ON / OFF BTM = 0K, MUD WT = 8.4 VIS = 36, FOOTAGE = 10', FPH = 5, TOOL FACE 20R
	8:00	- 8:30	0.50	DRLPRO	02	D	P	Rotate Drilling 5983' - 6000', WOB 10K, GPM= 128 PUMP # 1 = 29, SPM = PUMP #2 = 0 SPM, RPM = 25, MOTOR RPM = 185, PRESS ON OFF, BTM = 1051/1001 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 960 TORQUE ON / OFF BTM = 2.5K, MUD WT = 8.4, VIS = 35, FOOTAGE = 17', FPH = 34.
	8:30	- 10:00	1.50	DRLPRO	02	D	P	Slide Drilling 6000' - 6008', WOB 16K, GPM= 124 PUMP # 1 = 29, SPM = PUMP #2 = 0 SPM, RPM = 0, MOTOR RPM = 185, PRESS ON OFF, BTM = 1140 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 960 TORQUE ON / OFF BTM = 0K, MUD WT = 8.4 VIS = 36, FOOTAGE = 8', FPH = 5.3, TOOL FACE 10R
	10:00	- 11:00	1.00	DRLPRO	02	Đ	P	Rotate Drilling 6008' - 6030', WOB 10K, GPM= 128 PUMP # 1 = 29, SPM = PUMP #2 = 0 SPM, RPM = 25, MOTOR RPM = 185, PRESS ON OFF, BTM = 1051/1001 PSI , SCFM DOWN PARASITE = 1000 PARASITE PSI = 960 TORQUE ON / OFF BTM = 2.1K, MUD WT = 8.4, VIS = 35, FOOTAGE = 22', FPH = 22,
2016 (P. 1944) & 1923 (P. 1943)	11:00	<b>- 13:00</b>	2.00	DRLPRO	02	D	P	Slide Drilling 6030' - 6038', WOB 16K, GPM= 124 PUMP # 1 = 29, SPM = PUMP #2 = 0 SPM, RPM = 0, MOTOR RPM = 185, PRESS ON OFF, BTM = 1148/1001 PSI , SCFM DOWN PARASITE = 700, PARASITE PSI = 960 TORQUE ON / OFF BTM = 0K, MUD WT = 8.4 VIS = 36, FOOTAGE = 7', FPH = 3.5,



THE OF OIL, 636 3 MINING

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298 Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

Active Datum: Level)	RKB@	6,423.00ft	(above Me	an Sea	UWI: 0	)/13/S/10	/E/20/0/	NENE/6/PM/N	/1,142.00/E/0/0/0/0
Date	Probabilities and an experience	Time irt-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
	1.72	- 15:00	1.50	DRLPRO	02	D	P	AM/	Rotate Drilling 6038' - 6064', WOB 10K, GPM= 128 PUMP # 1 = 29, SPM = PUMP #2 = 0 SPM, RPM = 25, MOTOR RPM = 185, PRESS ON OFF, BTM = 1112/1001 PSI, SCFM DOWN PARASITE = 1000, PARASITE PSI = 960 TORQUE ON / OFF BTM = 2.1K, MUD WT = 8.4, VIS = 35, FOOTAGE = 26', FPH = 17.3,
	15:00	- 17:30	2.50	DRLPRO	02	D	Р		Slide Drilling 6064' - 6074', WOB 14K, GPM= 124 PUMP # 1 = 29, SPM = PUMP #2 = 0 SPM, RPM = 0, MOTOR RPM = 185, PRESS ON OFF, BTM = 1112/1001 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 960 TORQUE ON / OFF BTM = 0K, MUD WT = 8.4 VIS = 36, FOOTAGE = 10', FPH = 4,
	17:30	- 19:00	1.50	DRLPRO	02	D	P		Rotate Drilling 6074' - 6096', WOB 10K, GPM= 128 PUMP # 1 = 29, SPM = PUMP #2 = 0 SPM, RPM =
									25, MOTOR RPM = 185, PRESS ON OFF, BTM = 1112/1001 PSI, SCFM DOWN PARASITE = 1000, PARASITE PSI = 960 TORQUE ON / OFF BTM = 2.1K, MUD WT = 8.4, VIS = 35, FOOTAGE = 22', FPH = 14.6,
a Tenas Patro a Lifeta	19:00	- 21:00	2.00	DRLPRO	02	D	P		Slide Drilling 6096' - 6100', WOB 20-30K, GPM= 127 PUMP # 1 =30, SPM = PUMP #2 = 0 SPM, RPM =25, MOTOR RPM = 188, PRESS ON OFF, BTM = 1112/1001 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 930 TORQUE ON / OFF BTM = 0K, MUD WT = 8.5 VIS = 35, FOOTAGE = 4', FPH =1.33', TOOL FACE = 0
	21:00	- 22:30	1.50	DRLPRO	02	D	P		Rotate Drilling 6100' -6127', WOB 10K, GPM= 128 PUMP # 1 = 30, SPM = PUMP #2 = 0 SPM, RPM = 25, MOTOR RPM = 185, PRESS ON OFF, BTM = 1112/1001 PSI, SCFM DOWN PARASITE = 1000, PARASITE PSI = 960 TORQUE ON / OFF BTM = 2.1K, MUD WT = 85, VIS = 34, FOOTAGE = 27', FPH = 18
en a Garragor (1966), en obra	22:30	- 0:00	1.50	DRLPRO	02	D	P		Slide Drilling 6127' - 6133', WOB 20-30K, GPM= 127 PUMP # 1 =30, SPM = PUMP #2 = 0 SPM, RPM =25, MOTOR RPM = 188, PRESS ON OFF, BTM = 1112/1001 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 930 TORQUE ON / OFF BTM = 0K, MUD WT = 8.5 VIS = 35, FOOTAGE = 6', FPH =4', TOOL FACE - 0
10/25/2008	0:00	- 1:30	1.50	DRLPRO	02	D	P		Slide Drilling 6133' - 6137', WOB 10K, GPM= 127 PUMP # 1 = 30, SPM = PUMP #2 = 0 SPM, AIR DOWN DP = 200 SCFM = 30 GPM, RPM = 25, MOTOR RPM = 169, PRESS ON OFF, BTM = 1100 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 930 TORQUE ON / OFF BTM = 0K, MUD WT = 8.5 VIS = 35, FOOTAGE = 4', FPH = 2,7FOOL FACE 0 R
CLAMP NAME OF ACT ACT	1:30	- 6:30	5.00	DRLPRO	02	D	P		Rotate Drilling 6137' - 6202', WOB = 10K, GPM = 127 PUMP # 1 = 30, SPM = PUMP #2 = 0 SPM, AIR DOWN DP = 700 SCFM, RPM = 25, MOTOR RPM = 169, PRESS OWOFF, BTM = , SCFM DOWN PARASITE = 1200, PARASITE PSI = 930 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.5, VIS = 35, FOOTAGE = '65, FPH = 1.3, Increased
									air down parasite to 1200 scfm and 300 down drill pipe at 07:00 hours. Lost approximately 142 bbls mud between 05:30 - 07:00
							ing frans		mad petween 05.50 - 07.00

DN: 67 DU, 673 % MENEN D

3:58:58PM

33

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

PSI, SCFM DOWN PARASITE = 1200, PARASITE PSI = 975 TORQUE ON / OFF BTM= 0K, MUD WT = 8.5 VIS = 35, FOOTAGE = 9, FPH = 2.25, FOOL FACE = 0   10:30 - 12:00	Active Datum: Level)	KKB @	6,423.00ft	(above Mea	an Sea	UWI: 0	)/13/S/10	/E/20/0/NENE/6/PM/N	/1,142.00/E/0/0/0/0
6:30 - 10:30	Date			Committee of the property of the committee of the committ	Phase	Code			Operation
12-00   18-00   6-00   0.00		6:30	- 10:30	4.00			According to the Constitution		PUMP # 1 = 23, SPM = PUMP #2 = 0 SPM, AIR DOWN DP = 300 SCFM = 46 GPM, RPM = 0, MOTOR RPM = 180 PRESS ON/OFF, BTM = 1100 PSI, SCFM DOWN PARASITE = 1200, PARASITE PSI = 975 TORQUE ON / OFF BTM = 0K, MUD WT = 8.5 VIS = 35, FOOTAGE = 9, FPH
18:00   - 19:00   1.00   DRLPRO   06   A   P   Rig service		10:30	- 12:00	1.50	DRLPRO	.02	D	P	= 120 PUMP # 1 = 29, SPM = PUMP #2 = 0 SPM, AIR DOWN DP =200 SCFM = 1000 GPM, RPM = 25, MOTOR RPM = 175, PRESS OWOFF, BTM = 1036 PSI, SCFM DOWN PARASITE = 1000, PARASITE PSI = 990 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.4, VIS = 35, FOOTAGE = '6,
18:00 - 19:00		12:00	- 18:00	6.00	DRLPRO	05	Α	Р	TOOH at 6217' to replace bit and BHA
19:00   -21:00   2:00   DRLPRO   05   A   P   TIH to 4530' Install rotating head   21:00   -22:30   1:50   DRLPRO   05   D   P   Unload Hole at 4530' 1000 CFM down Parasite 700 cfm down drill pipe   TIH 4530' to 6187' Ream 90' to bottom. Record gamma over last 30' due to BHA change   10/26/2008   0:00   -0:30   0:50   DRLPRO   05   A   P   TIH 4530' to 6187' Ream 90' to bottom. Record gamma over last 30' due to BHA change   TIH   TIH TIH TIH TIH TIH TIH TIH TIH TIH TIH	Mile Pic	18:00	- 19:00	1.00	DRLPRO	.06	Α	<b>P</b> 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
21:00 - 22:30	g dette wild starte st	19:00	- 21:00	2.00	DRLPRO	05		the property of the second of the second	그는 이렇게 하는데 아이는 것이 나는 사람들이 나를 하는데 하는데 나를 가는 것이 되었다. 그는 것은 사람들이 되었다. 그는 것은 사람들이 되었다.
10/26/2008		21:00	- 22:30	1.50	DRLPRO	05	D	P	Unload Hole at 4530' 1000 CFM down Parasite 700
0:30 - 3:00   2:50   DRLPRO   02   D   P   Rotate Drilling 6217' to 6234", WOB = 10-12K, GPN = 127 PUMP # 1 = 30, SPM = PUMP #2 = 0 SPM, AIR DOWN DP = 200 SCFM = 1000 GPM, RPM = 25, MOTOR RPM = 169, PRESS ON/OFF, BTM = 1036 PSI, SCFM DOWN PARASITE = 1000, PARASITE PSI = 990 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.5, VIS = 35, FOOTAGE =17 ', FPH = 6.8				1.50	DRLPRO	05	Α	Р	TIH 4530' to 6187' Ream 90' to bottom. Record
### ### ### ### ### ### ### ### ### ##	10/26/2008			0.50	DRLPRO	05	Α		
6:00 - 9:00 3.00 DRLPRO 05 A P Change out mud motors, make up bit, scribe tools and TIH to 3900', Install rotating head 9:00 - 10:30 1.50 DRLPRO 06 D P Dock top drive, cut drilling line and 2 point calibrate 10:30 - 11:00 0.50 DRLPRO 06 A P Rig Service 11:00 - 14:30 3.50 DRLPRO 05 A P TIH to 4650' and unload hole w/ 800 scfm air and 16 gpm down DP and 1200 scfm down parasite string 14:30 - 15:00 0.50 DRLPRO 05 D P Break circulation and wash 6206' - 6234' 15:00 - 18:00 3.00 DRLPRO 02 D P Rotate Drilling 6234' to 6239", WOB = 9k, GPM = 123 PUMP # 1 = 39, SPM = PUMP #2 = 0 SPM, AIR DOWN DP = 200 SCFM = 30 GPM, RPM = 25, MOTOR RPM = 184, PRESS ONOFF, BTM = 1036 PSI, SCFM DOWN PARASITE = 1300, PARASITE PSI = 700 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.5, VIS = 35, FOOTAGE = 5 ', FPH = 1.6  18:00 - 21:00 3.00 DRLPRO 05 A P TOOH to check bit and motor 21:00 - 22:00 1.00 DRLPRO 05 A P Break bit and mud motor. It took 3000 foot pounds of torque to attempt to drain motor and motor did no drain good. Bit showed flat crested wear down where cutters were the same height as the ROP limiters button							<b>D</b>	P	= 127 PUMP # 1 = 30, SPM = PUMP #2 = 0 SPM, AIR DOWN DP =200 SCFM = 1000 GPM, RPM = 25, MOTOR RPM = 169, PRESS OWOFF,BTM = 1036 PSI, SCFM DOWN PARASITE = 1000, PARASITE PSI = 990 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.5, VIS = 35, FOOTAGE =17 ', FPH =6.8
and TiH to 3900', Install rotating head 9:00 - 10:30		San Service Control of						그렇게 그 글로를 하는	어떤 하는 것은 사람들이 되었다. 그 사람들이 가장 하는 사람들이 하는 그들은 그 사람들이 되는 것이 되었다. 그 얼마 함께 나온다
10:30 - 11:00				a same satisfica			va.		and TIH to 3900', Install rotating head
11:00 - 14:30				化邻甲二烯酰苯二甲基酚		T 154 G			그는 사람들은 사람들은 그는 사람들이 되었다. 그는 사람들은 사람들이 얼마나 하는 것이 되었다. 그는 사람들은 사람들이 되었다.
14:30 - 15:00   0.50   DRLPRO   05   D   P   Break circulation and wash   6206' - 6234'     15:00 - 18:00   3.00   DRLPRO   02   D   P   Rotate Drilling   6234' to   6239", WOB = 9k, GPM =   123 PUMP # 1 = 39, SPM = PUMP #2 = 0 SPM, AIR DOWN DP = 200 SCFM = 30 GPM, RPM = 25, MOTOR RPM = 184, PRESS ON/OFF, BTM = 1036 PSI, SCFM DOWN PARASITE = 1300, PARASITE PSI = 700 TORQUE ON / OFF BTM =   3/1K, MUD WT = 8.5, VIS = 35, FOOTAGE = 5', FPH = 1.6     18:00 - 21:00   3.00   DRLPRO   05   A   P   TOOH to check bit and motor     21:00 - 22:00   1.00   DRLPRO   05   A   P   Break bit and mud motor. It took   3000 foot pounds of torque to attempt to drain motor and motor did no drain good. Bit showed flat crested wear down where cutters were the same height as the ROP limiters button	and the second of the second			Company of the second	and the second second second			The state of the s	
15:00 - 18:00 3.00 DRLPRO 02 D P  Rotate Drilling 6234' to 6239", WOB = 9k, GPM = 123 PUMP # 1 = 39, SPM = PUMP #2 = 0 SPM, AIR DOWN DP = 200 SCFM = 30 GPM, RPM = 25, MOTOR RPM = 184, PRESS ON/OFF,BTM = 1036 PSI , SCFM DOWN PARASITE = 1300, PARASITE PSI = 700 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.5, VIS = 35, FOOTAGE = 5 ' , FPH = 1.6  18:00 - 21:00 3.00 DRLPRO 05 A P  TOOH to check bit and motor  21:00 - 22:00 1.00 DRLPRO 05 A P  Break bit and mud motor. It took 3000 foot pounds of torque to attempt to drain motor and motor did no drain good. Bit showed flat crested wear down where cutters were the same height as the ROP limiters button									gpm down DP and 1200 scfm down parasite string
123 PUMP # 1 = 39, SPM = PUMP #2 = 0 SPM, AIR DOWN DP = 200 SCFM = 30 GPM, RPM = 25, MOTOR RPM = 184, PRESS ON/OFF,BTM = 1036 PSI , SCFM DOWN PARASITE = 1300, PARASITE PSI = 700 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.5, VIS = 35, FOOTAGE = 5 ', FPH = 1.6  18:00 - 21:00				Large and areas are a second	and the second second		4	in. Alamining state of the state of the	والمراز والمراز والمراز والمراز والمناز
21:00 - 22:00 1.00 DRLPRO 05 A P Break bit and mud motor. It took 3000 foot pounds of torque to attempt to drain motor and motor did no drain good. Bit showed flat crested wear down where cutters were the same height as the ROP limiters button							<b>J</b>		123 PUMP # 1 = 39, SPM = PUMP #2 = 0 SPM, AIR DOWN DP = 200 SCFM = 30 GPM, RPM = 25, MOTOR RPM = 184, PRESS ON/OFF,BTM = 1036 PSI, SCFM DOWN PARASITE = 1300, PARASITE PSI = 700 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.5, VIS = 35, FOOTAGE = 5 ', FPH = 1.6
of torque to attempt to drain motor and motor did no drain good. Bit showed flat crested wear down where cutters were the same height as the ROP limiters button				3.00	DRLPRO	05	Α	P	and the second of the second o
		21:00	- 22:00	1,00	DRLPRO	05	A		of torque to attempt to drain motor and motor did not drain good. Bit showed flat crested wear down where cutters were the same height as the ROP
		22:00	- N·NA	2.00	חפם ופת	ቦዶ	ν/(ξ.) / (.) Δ	대용으로 중요한 경우의 4층. • • • • • • • • • • • • • • • • • • •	



3:58:58PM

#### STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL, GAS AND MINING	5. LEASE DESIGNATION AND SERIAL NUMBER: FEE *UTU71675
SUNDRY NOTICES AND REPORTS ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	7. UNIT OF CA AGREEMENT NAME:
1. TYPE OF WELL OIL WELL GAS WELL OTHER CBM	8. WELL NAME and NUMBER: BLACKHAWK A-5H
2. NAME OF OPERATOR: ANADARKO PETROLEUM CORPORATION	9. API NUMBER: 4300731402
3. ADDRESS OF OPERATOR: 1099 18TH ST. STE 1800 CITY DENVER STATE CO ZIP 80202 (720) 929-6832	10: FIELD AND POOL, OR WILDCAT: HELPER/FERRON A
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1142' FNL, 263' FEL LAT: 39.685470 LONG: -110.817271  QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 20 13S 10E	COUNTY: CARBON STATE:
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPO	UTAH PT OP OTHER DATA
TYPE OF SUBMISSION  TYPE OF SUBMISSION  TYPE OF ACTION	KI, OR OTHER DATA
NOTICE OF INTENT (Submit in Duplicate)  Approximate date work will start:  CASING REPAIR  CHANGE TO PREVIOUS PLANS  CHANGE TUBING  CHANGE WELL NAME  CHANGE WELL STATUS  DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volume  Anadarko released Drill Rig: H&P 298 10/30/08 12:00  Well is currently shut in and awaiting further evaluation on Drilling alternatives as stated in STHE CEMENT FOR MATION  DESCRIBE PROPOSED OR COMPLETED OPERATIONS of class "G" Neat Cement. BLM R notified and declined to witness setting the plug.	Sundry sent 10-27-2008.
The status of the well will be updated monthly as stated in the Conditions of Approval. Attac Operation Summary. Thank you.	<del>-</del>
NAME (PLEASE PRINT) Cindy B. Vue	/st
SIGNATURE Of Blee DATE 11/3/2008	
(This space for State use only)	RECEIVED

NOV 0 4 2008

# **Operation Summary Report**

۷	Ve	≥ll:	Βl	Α.	Cŀ	Ϥ	Ąŀ	۷	۷	Κ	Α	-5	۲	I
---	----	------	----	----	----	---	----	---	---	---	---	----	---	---

Project: UTAH Site: CARBON Rig Name No: H&P 298/298 Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

Active Datum: RKB @6.423.00ft (above Mean Sea UWI: 0/13/S/10/E/20/0/NENE/6/PM/N/1.142.00/E/0/0/0/0

Active Datum: Level)	n Sea	UWI: 0/13/S/10/E/20/0/NENE/6/PM/N/1,142.00/E/0/0/0/0							
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation	
7/30/2008	7:00 - 17:00	10.00	MAINT	02		Р	C9	MIRU NELCO DOZERS & TRACK HOE. STARTED CONSTRUCTION OF ROAD LOCATION. COMPLETED - INSTALLED 100' 24". INSTALLED PIT ANCHOR FOR BLEWY LINE.	
8/3/2008	19:30 - 21:00	1.50	RDMO	01	E	Р		Rig down back yard	
	21:00 - 0:00	3.00	RDMO	01	E	Р		Wait on daylight	
8/4/2008	0:00 - 6:00	6.00	RDMO	01	E	Р		Wait on daylights	
	6:00 - 20:00	14.00	RDMO	01	Ε	Р		Rig down rotary tools, lower derrick, gas buster, shaker skid, sub and secure all lose equipment for long road trip	
	20:00 - 0:00	4.00	RDMO	01	E	P		Stack out back yard along road and prep for haul trucks in the morning. Wait on derrick Wait on daylight	
8/5/2008	0:00 - 6:00	6.00	RDMO	01	E	Р		Wait on daylight	
0/0/2000	6:00 - 20:00	14.00	RDMO	01	A	Р		Load both generators, mud pump, diesel tanks, mud	
	20.00	14.00	, tolino	01	^	•		tanks, crown section of derrick, oil house, water tanks, company mans house, mud loggers house, shaker skid, VFD, MCC. Total of 16 loads left for Utah	
	20:00 - 0:00	4.00	RDMO	01	Α	P		Wait on daylight	
8/6/2008	0:00 - 6:00	6.00	RDMO	01	Α	P		Wait on daylight	
	6:00 - 18:00 18:00 - 0:00	12.00	RDMO	01	A	P		Continue to move rig to location. Assembly equipment in preparation for rig up. The following equipment has arrive on location: Crown section of derrick, mud mixing tank, #1 pump, settling mud tank, diesel tank, water tank, cat walk, beaver slide, drill collars and HWDP, Co-man's house, 1 double sleeper house, oil house, both generators, draw works, drilling line, BOP skid, shaker skid, drillers side sub, center sub, dog house, change house, VFD house, HPU house, toolpushers house. There is more edquipment on the road.	
8/7/2008	0:00 - 6:00	6.00	RDMO	01	Α	Р		Wait on daylight	
	6:00 - 18:00	12.00	RDMO	01	Α	P		Continue to move the following rig to location: Choke & trip tank, parts house, rig crew living quarters, BOP handler, Potable water tank, connex, pit side of sub, bottom of derrick. Rearrange equip on lower location and set 1-DBL ended sleeper, H&P crew quarters and old co-man's office. #2 mud pump and MCC house was in Roosevelt, UT	
	18:00 - 0:00	6.00	RDMO	01	Α	Р		Wait on daylight	
8/8/2008	0:00 - 6:00	6.00	RDMO	01	Α	S		Wait on 3D Drilling and daylight	

11/3/2008

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

TOJECE. OTA	•		Oile. OA	I COIL				INING INAMILE INC. HAF 230/230		
vent: DRILLI	NG		Start Da	te: 7/30	/2008	End D	ate:	Spud Date: 8/14/2008		
Active Datum:	RKB @6,423.00ft	(above Mea	n Sea	UWI: (	0/13/S/10	/F/20/0/	NENE/6/PM/N/			
.evel)	30, .20.0010	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				5, 5/		·, · · <del>· · · · · · · · · · · · · · · · </del>		
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation		
	6:00 - 18:00	12.00	RDMO	12	Е	S		Wait on 3D Drilling to arrive on location; 06:00 hrs contact; rig was loading up and headed to location 10:30 hrs contact; rig in route to location. 14:00 hrs contact; truck hauling pipe, cellar ring and digging tools was lost in Helper UT, they were directed to location, truck un-hooked from trailer and drove to Wellington to wait on rig. 16:30 hrs contact; rig stuck in Utah/Colorado port of entry trying to get all permits needed to enter Utah. 20:0 hrs contact; rig had cleared all necessary permits the leave port of entry but could not leave due to truck hauling it does not have proper authority to enter Utah and waiting to be cleared.		
								All rig components are on location		
	18:00 - 0:00	6.00	RDMO	12	E	S		Wait on 3D Drilling and daylight		
8/9/2008	0:00 - 6:00	6.00	RDMO	01	Α	S		Wait on 3D Drilling and daylight		
	6:00 - 10:00	4.00	DRLCON	01	D	Р		Wait on 3D Drilling		
	10:00 - 10:30	0.50	DRLCON	01	D	Р		Unload 3D Drilling rathole rig		
	10:30 - 20:30	10.00	DRLCON	01	D	P		Drill conductor hole to 65' at 20:30 hrs		
	20:30 - 0:00	3.50	DRLCON	01	D	P		Continue to drill conductor w/ 3D Drilling. H&P shu		
		0.00	DIVEGGIA	٠.		•		down and wait on daylight		
8/10/2008	0:00 - 6:00	6.00	DRLCON	01	D	s		Drill conductor to 80' GL and cellar		
	6:00 - 11:00	5.00	DRLCON	01	D	S		Pickup conductor pipe and weld together. Cement conductor w/ Superior		
	11:00 - 0:00	13.00	DRLCON	01	D	S		Drill mouse hole, hard rock drilling		
8/11/2008	0:00 - 6:00	6.00	DRLCON	01	D	Р		Wait on welder and daylight		
	6:00 - 8:00	2.00	DRLCON	01	D	Р		Weld up mouse hole pipe		
	8:00 - 9:30	1.50	DRLCON	01	D	P		Wait on Superior Well Service		
	9:30 - 12:00	2.50	DRLCON	01	D	P		Finish cementing top of conductor and cement mouse hole		
	12:00 - 13:00	1.00	DRLCON	01	В	Р		Lay out location for rig up		
	13:00 - 13:30	0.50	DRLCON	01	В	P		HSM w/ Hemphill trucking and rig crews		
	13:30 - 20:00	6.50	DRLCON	01	В	P		MIRU the following equipment: shaker skid, settlin tank, suction tank, both mud pumps, MCC house, water tank, oil house, VFD house, both generators diesel tank, draw works, mud boat, BOP handler, substructure and raise substructure. Estimate 55-60% rigged up		
	20:00 - 0:00	4.00	DRLCON	01	В	Р		Wait on daylight		
8/12/2008	0:00 - 6:00	6.00	DRLCON	01	В	Р		Wait on daylight		
	6:00 - 20:00	14.00	DRLCON	01	В	P		Continue to rig up the following equipment: Set an raise dog house, raise shakers, raise gas buster, install flow line, cat walk, beaver slide, set parts house, set HPU, assemble derrick and raise, derric up at 16:25 hrs, set houses on location, hookup electrical lines, set pipe racks and load w/ BHA, unload casing		
	20:00 - 0:00	4.00	DRLCON	01	В	Р		Wait on daylight		
8/13/2008	0:00 - 6:00	6.00	MIRU	12	D	P		WAIT ON DAYLIGHT.		
	6:00 - 22:00	16.00	MIRU	01	В	Р		Continue to rig up the following equipment: Install flow line, rig up floor, hook up flare lines, Set house on location, hookup electrical lines, set pipe racks and load w/ BHA,		
	22:00 - 0:00	2.00	MIRU	05	Α	Р		Mix spud mud - pickup BHA		
8/14/2008	0:00 - 1:00	1.00	PRPSPD	05	Α	Р		ATTEMPT TO MAKE UP BIT WITH SCORPION HAVING TROUBLE WITH ADJUSTMENT ARMS		

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Active Datum: Level)	RKB @6,423.00ft	(above Mea	ın Sea					1,142.00/E/0/0/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
	1:00 - 7:00	6.00	PRPSPD	07	A	X		WAIT ON NEW SCORPION
	7:00 - 8:00	1.00	PRPSPD	07	В	Χ		ATTEMPT TO MAKE UP BIT.
	8:00 - 13:00	5.00	PRPSPD	07	Α	Χ		WAIT ON WELDER/ CUT BIT BREAKER TO FIT IN SCORPION.
	13:00 - 14:00	1.00	PRPSPD	05	Α	Р		MAKE UP BIT, RUN IN HOLE AND TAGGED CMT.
	14:00 - 14:30	0.50	DRLSUR	02	F	Р		DRILL 30 OF CMT.
	14:30 - 21:00	6.50	DRLSUR	02	В	Р		DRILL F/105-T/318, WOB-11-18, SPP ON/OFF- 423/1009, TORQUE ON/OFF- 2-0K, ROTORY RPM-40-60, MOTOR RPM-158, SPM-1160, GPM-720, MW-9.0, VIS-37
	21:00 - 21:30	0.50	DRLSUR	09	Α	Р		WIRELINE SURVEY@ 260 - 2.5 DEG.
	21:30 - 22:00	0.50	DRLSUR	07	Α	Р		LEVEL DERRICK
	22:00 - 0:00	2.00	DRLSUR	02	A	P		DRLG F/318-T/ 368 , WOB 15 - 20, ROT 50 - 70, TORQUE OFF/ON 0-3K, SPM 160, MUD MTR.720 GPM - 158 RPM, TOP DRIVE 50 TO 70 RPM, SPP ON/OFF 1155/455
8/15/2008	0:00 - 0:30	0.50	DRLSUR	02	В	Р		DRLG F/368-379 , WOB 15 - 20, ROT 50 - 70, TORQUE OFF/ON 1-3K, SPM 160, 720 GPM MOTOR RPM 115., TOP DRIVE 50 TO 70 RPM, SPP ON/OFF 1155/950
	0:30 - 1:00	0.50	DRLSUR	07	Α	Р		INSPECT DERRICK AND TOP DRIVE. CHANGE OUT EXTENTION PORT ON GRABBER, TIE DOWN BOLTS ON CAP. (LOTS OF VIBRATION WHILE DRILLING SURFACE.
	1:00 - 5:30	4.50	DRLSUR	02	В	Р		DRLG F/379-535 , WOB 15 - 20, ROT 50 - 70, TORQUE OFF/ON 1-3K, SPM 160, 720 GPM MOTOR RPM 115, TOP DRIVE 50 TO 70 RPM, SPP ON/OFF 1155/950
	5:30 - 6:30	1.00	DRLSUR	04	С	Р		CIRC AND CLEAN HOLE, DROP SURVEY (MISS RUN ON SURVEY)
	6:30 - 9:00	2.50	DRLSUR	05	Α	Р		TRIP OUT, L/D 8" TOOLS. NO TIGHT SPOTS ON TRIP.
	9:00 - 12:00	3.00	DRLSUR	11	Α	Р		SAFETY METTING ON PICKING UP PIPE WITHOUT LAY DOWN MACHINE.RIG UP CASING EQUIPMENT
	12:00 - 14:30	2.50	DRLSUR	12	Ε	Х		WAIT ON BACK UP TONGS FOR CASING.
	14:30 - 17:30	3.00	DRLSUR	11	В	Р		MAKE UP SHOE AND RUN 13 JTS OF 10 3/4 32.75#, H-40 STC LAND AT 530' HAD TO PUMP IN 7 JTS. TO BTM. DO TO FLOATING AND CENTRI. DRAGGING IN HOLE AND NOT ENOUGH WT TO PUSH TO BTM.
	17:30 - 19:00	1.50	DRLSUR	04	Е	Р		CIRC AND RIG DOWN CSG. EQ.AND RIG UP CMT. EQ.
	19:00 - 20:00	1.00	DRLSUR	15	Α	Р		CMT WITH SUPERIOR AND CMT WITH. 350 SKS. CLASS G 15.6#, 1.18 YIELD, 5.20 GAL/SK, 22 BBLS BACK TO SURFACE BUMPED PLUG WITH 500 PSI OVER HELD FOR 5 MINS FLOATS HELD.
	20:00 - 0:00	4.00	DRLSUR	12	В	Р		WAIT ON CMT.
8/16/2008	0:00 - 4:30	4.50	DRLIN1	18	Α	Р		REMOVE CMT HEAD, LIFT CONDUCTOR CUT HOLES IN CASING TO DRAIN, CUT OFF CASING AND L/D, CLEAN CELLAR TO WELD ON WELLHEAD. MAKE FINAL CUT ON CASING.
	4:30 - 7:00	2.50	DRLIN1	18	Α	Р		WELD ON WELLHEAD AND TEST TO 900 PSI AND HELD FOR 20 MIN. GOOD TEST.
	7:00 - 20:30	13.50	DRLIN1	13	Α	Р		INSTALL B SECTION AND NIPPLE UP BOPE
	20:30 - 0:00	3.50	DRLIN1	13	С	Р		PRESSSSURE TEST BOPS

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLI	NG		Start Da	te: 7/30	/2008	End D	ate:	Spud Date: 8/14/2008			
	RKB @6,423.00ft	(above Mea	n Sea	UWI: 0	)/13/S/10	/E/20/0/	NENE/6/PM/N	N/1,142.00/E/0/0/0/0			
Level) Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation			
8/17/2008	0:00 - 3:00	3.00	DRLIN1	13	C	Р	(	TEST BOPE 250 PSI FOR 5 MIN, 3000 PSI FOR 10 MIN, TEST CASING TO 1000 PSI FOR 30 MIN, TESTED ANNULAR 1750 PSI.			
	3:00 - 4:00	1.00	DRLIN1	13	Α	Р		FINISH NIPPLE UP.			
	4:00 - 4:30	0.50	DRLIN1	13	Α	Р		INSTALL WEAR BUSHING.			
	4:30 - 7:00	2.50	DRLIN1	05	Α	Ρ		PICK UP BHA			
	7:00 - 7:30	0.50	DRLIN1	18	Α	Р		TIGHTEN ROT. HEAD FLANGE			
	7:30 - 8:00	0.50	DRLIN1	02	F	Р		DRLG CMT, TAG CMT @ 476, FLOAT @ 483, SHOE@ 530			
	8:00 - 11:30	3.50	DRLIN1	02	В	Р		DRLG F/530' T/892', WOB 16K, RPM 48, TQ ON/OFF BTM 4/1, SPM #1 111, GPM 498, SPP ON/OFF BTM 986/878 RPM, MUD MTR RPM 79, ROP 30'			
	11:30 - 12:00	0.50	DRLIN1	09	Α	Р		WIRELINE SURVEY @ 823 X PULSE 4.1 DEG.			
	12:00 - 16:30	4.50	DRLIN1	02	В	Р		DRLG F/892 T/960, WOB 4K, RPM 65, TQ ON/OFF 1/1K, SPM #1 111, GPM 498, SPP ON/OFF BTM 986/930 PSI MUD MTR. 79 RPM ROP 30'			
	16:30 - 17:00	0.50	DRLIN1	06		Ρ		SERVICE RIG - CALIBRATE PASON WT			
	17:00 - 22:00	5.00	DRLIN1	02	В	Р		DRLG F/ 960 T/1054, WOB 6K, RPM 75, TQ ON/OFF 2/1, SPM #2 111, GPM 498, SPPON/OFF BTM 990/920 PSI, MUD MTR 79, ROP 30'			
	22:00 - 22:30	0.50	DRLIN1	09	Α	P		WIRELINE SURVEY @ 964 4.0 DEG., XPULSE 3.7 DEG. AZ. 216.6			
	22:30 - 0:00	1.50	DRLIN1	02	В	Р		DRLG F/1054 T/1120', WOB 6K, RPM 75, TQ ON/OFF BTM 2/1K, SPM #2 111, GPM 498, SPP ON/OFF BTM 030/933 PSI, MUD MTR. 79,ROP 30'			
8/18/2008	0:00 - 1:00	1.00	DRLIN1	02	В	Р		DRLG F 1120 T 1150, WOB 6K, RPM 75, TQ OWOFF BTM 2/1 SPM #2 111, GPM 498, SPP OWOFF BTM 1030/933, MUD MTR RPM 79, ROP 30'			
	1:00 - 1:30	0.50	DRLIN1	09	Α	Р		WIRELINE SURVEY @ 1063 4.5 DEG.			
	1:30 - 4:30	3.00	DRLIN1	02	В	Р		DRLG F 1150 T 1245, WOB 6K, RPM 75, TQ OWOFF BTM 2/1 SPM #2 111, GPM 498, SPP OWOFF BTM 1030/933, MUD MTR RPM 79, ROP 30'			
	4:30 - 5:00	0.50	DRLIN1	09	Α			WIRELINE SURVEY @ 1157 3 1/4 DEG.			
	5:00 - 7:30	2.50	DRLIN1	02	В	Р		DRLG F 1245 T 1348 , WOB 6-10K, RPM 75, TQ ON/OFF BTM 2/1 SPM #2 111, GPM 498, SPP ON/OFF BTM 1047/982, MUD MTR RPM 79, ROP 41'			
	7:30 - 8:00	0.50	DRLIN1	09	Α	Р		WIRELINE SURVEY @1276 3.25 DEG. XPULSE 1256, 3.5 DEG 214.5 AZ.			
	8:00 - 0:00	16.00	DRLIN1	02	В	P		DRLG F 1348 T 2025 , WOB 10-15K, RPM 75, TQ ON/OFF BTM 2/1 SPM #2 111, GPM 498, SPP ON/OFF BTM 1047/982, MUD MTR RPM 79, ROP 41'			
8/19/2008	0:00 - 1:00	1.00	DRLIN1	02	В	Р		DRLG F/2025 T/ 2100 , WOB 18K, RPM 75, TQ OWOFF BTM 2/1, SPM #2 111, GPM 498, SPP OWOFF 1450/1111, MUD MTR RPM 79,			
	1:00 - 1:30	0.50	DRLIN1	06	Α	Р		SERVICE RIG			
	1:30 - 8:00	6.50	DRLIN1	02	В	P		DRLG F/2100 T/2382 , WOB 15K, RPM 75, TQ ONOFF BTM 4/1K, SPM #2 111, GPM 0N/OFF BTM 498, SPP ON/OFF BTM 1350/1200 PSI, MUD MTR 79 RPM, ROP 43.3'/HR			

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLI	NG		Start Da	art Date: 7/30/2008			ate:	Spud Date: 8/14/2008		
Active Datum: ₋evel)	RKB @6,423.00ft	(above Mea	n Sea	ea UWI: 0/13/S/10/I			NENE/6/PM/N/	1,142.00/E/0/0/0/0		
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation		
	8:00 - 12:00	4.00	DRLIN1	02	В	P	(II)	DRLG F/2382-2477, WOB 10K, RPM 75, TQ ON/OFF BTM 3/1K, SPM #2 111, GPM 0N/OFF BTM 498, SPP ON/OFF BTM 1250/1200 PSI, MUD MTR 79 RPM, ROP 23.7'/HR (ANGLE IS BUILDING TO 4.6 USE LIGHTER WT. TO DRILL WITH.)		
	12:00 - 12:30	0.50	DRLIN1	06	Α	Р		RIG SERVICE		
	12:30 - 14:30	2.00	DRLIN1	04	D	Х		LOST TOTAL CIRC. PUMP LCM PILLS, BUILD VOL. LOST 650 BBLS. POSSIBLE ZONE LOSS A 2454 AND AT BTM OF 2477'		
	14:30 - 20:00	5.50	DRLIN1	16	E	Р		HAUL WATER AND FILL MUD TANKS, RESERV PIT AND RIG TANKS MIX LCM PILLS.		
	20:00 - 0:00	4.00	DRLIN1	02	В	Р		DRLG F/2477 T/2557 , WOB 10K, RPM 65, TQ ON/OFF BTM 3/1K, SPM #2 78, 350 GPM , SPP ON/OFF BTM 890/ PSI, MUD MTR 58 RPM, ROP 25'/HR		
8/20/2008	0:00 - 0:30	0.50	DRLIN1	02	В	Р		DRLG F/2557 T/2561, WOB 10, RPM 60, TQ OWOFF BTM 3/1, SPM #2 78, 350 GPM, SPP OWOFF BTM 985/900, MUD MTR. 58 ROP 15' PER HR		
	0:30 - 3:30	3.00	DRLIN1	04	D	Р		RUN OUT OF FLUID, HAUL WATER FOR VOLUME		
	3:30 - 10:30	7.00	DRLIN1	02	В			DRLG F/22561 T/2746, WOB 10K, RPM 70, TQ ON/OFF BTM 3/1K, SPM #2 70, GPM 315, SPP ON/OFF BTM 675/650 PSI, MUD MTR 50 RPM, ROP 24.9/HR		
	10:30 - 11:00	0.50	DRLIN1	04	D	P		WORK PIPE WHILE WAITING ON WATER		
	11:00 - 16:00	5.00	DRLIN1	05	Α	Р		POOH, CHANGE OUT MUD MTR, MOVE REAMERS IN BHA. HAD 30K OVER PULL AT 2450 WORK THRU AND DID NOT SEE IT AGAIN		
	16:00 - 19:00	3.00	DRLIN1	05	Α	Р		TIH WITH NEW BHA		
	19:00 - 20:30	1.50	DRLIN1	03	Ε	Х		WASH & REAAM TIGHT SPOTS @ 2450 & 2746		
	20:30 - 0:00	3.50	DRLIN1	02	В	Р		DRLG F/2746 T/ 2780, WOB 10K, RPM 65, TQ O OFF BTM 2/1, SPM #1 70, GPM 315, SPP ON/OF 840/ 800, MUD MTR 50, ROP 25' PER HR		
8/21/2008	0:00 - 0:30	0.50	DRLIN1	13	Α	Р		INSTALL ROTATING HEAD RUBBER		
	0:30 - 3:00	2.50	DRLIN1	02	В	Р		DRLG F/2780 T2821 WOB 10K, RPM 70, TQ ON/OFF BTM 3/1, SPM #1 70, 315 GPM, SPP ON/OFF BTM 926/850, MUD MTR 50 RPM, STARTED AIR JAMMERS @ 01:30 W/250 CFM, INCREASED TO 700 CFM, NO RETURN		
	3:00 - 5:30	2.50	DRLIN1	04	D	X		WAITING ON WATER, WORKING PIPE		
	5:30 - 6:00	0.50	DRLIN1	02	В	Р		DRLG F/2821- 2840' WOB 10K, RPM 70, TQ ON/OFF BTM 3/1, SPM #1 70, 315 GPM, SPP ON/OFF BTM 926/850, MUD MTR 50 RPM, INCREASE TO 1000 CFM AND NO RETURNS.		
	6:00 - 6:30	0.50	DRLIN1	04	D	Χ		SHUT DOWN PUMPS AND WORK PIPE 450 CF		
	6:30 - 7:00	0.50	DRLIN1	05	G	Р		BLEED AIR PRESSURE & PULL 6 STD PIPE		
	7:00 - 10:00	3.00	DRLIN1	04	D	Р		TRIED TO GET RETURNS W/ 450, 700, 1000, 1600 CFMS. GOT AIR RETURNS NO FLUID, STAGE IN HOLE 3 STDS & REGAIN RETURNS W/ 1600 CFM & 135 PM WENT TO BOTTOM GO CIRC W/ 450 GPM		
	10:00 - 11:30	1.50	DRLIN1	02	В	Р		DRLG F/ 2840 T/2865, WOB 5/10K, CFM 1250/1600, GPM 420/470, PUMP #2 60 SPM, M/N 145 RPM, RPM 70, SPP ON/OFF BTM 1340/650, TQ ON/OFF BTM 5/1		
	11:30 - 12:00	0.50	DRLIN1	02	В	Р		ESTABLISH RETURNS W/1600 CFM, 10 SPM, THEN WENT TO 1300 CFM, 50 SPM= 425 GPM		

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLI			Start Da	te: 7/30	/2008	End Da	ate:	Spud Date: 8/14/2008		
Active Datum: Level)	RKB @6,423.00ft	(above Mea				/E/20/0/I	NENE/6/PM/N/	1,142.00/E/0/0/0/0		
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation		
	12:00 - 0:00	12.00	DRLIN1	02	В	Р		DRLG F/2840 T/3365, WOB 5/10, CFM 1200/1600, GPM 454/515, M/M 72/82 RPM, SPM #1 60, RPM70		
8/22/2008	0:00 - 7:00	7.00	DRLIN1	02	В	P		DRLG F/3365 T/3713, WOB 10, CFM 900/1600, GPM 270, TOTAL GPM WITH AIR 400/454, PUMP #2 60 SPM, M/M 70, RPM 70, SPP ON/OFF 1200/ 800, TQ ON/OFF 5/1		
	7:00 - 7:30	0.50	DRLIN1	06	Α	Р		RIG SERVICE		
	7:30 - 10:30	3.00	DRLIN1	02	В	Р		DRLG F/3713-3840, WOB 10, CFM 900/1600, GPM 270, TOTAL GPM WITH AIR 400/454, PUMP #2 60 SPM, M/M 70, RPM 70, SPP ON/OFF 1200/ 800, TQ ON/OFF 5/1		
	10:30 - 11:00	0.50	DRLIN1	04	F	P -		CIRC SAMPLES.		
	11:00 - 13:30	2.50	DRLIN1	09	С	Р		PULL 2STDS HELD SAFETY MTG WITH GYRO HAND, RIG UP AND RUN GYRO ON SURVEY LINE AND SURVEY F/3650' @100' INTERVALS TO SURFACE		
	13:30 - 17:00	3.50	DRLIN1	05	В	Р		TRIP OUT OF HOLE L/D XPULSE, MONEL,2- REAMERS, MOTOR AND BIT. FOR CORING.		
	17:00 - 18:30	1.50	DRLIN1	07	В	Р		CHANGE OUT SAVER SUB ON TOP DRIVE F/ 4 1/2 XH TO 4 1/2 IF CHANGE OUT ELEVATORS FROM 4 1/2 - 5"		
	18:30 - 20:30	2.00	DRLIN1	05	Α	Р		PICK UP CORE BARREL & PRESSURE TEST SAME		
	20:30 - 21:00	0.50	DRLIN1	05	Α	Р		RIG UP WEATHERFORD LAY DOWN MACHINE HELD SAFETY MEETING BEFORE PICKING UP 5" DP		
	21:00 - 23:30	2.50	DRLIN1	05	Α	Р		PICK UP 6 1/2 DC & 5" DP		
	23:30 - 0:00	0.50	DRLIN1	04	D	Р		BREAK CIRC. WITH 150 CFM & 950 PSI, STROKED PUMP 50 SPM		
8/23/2008	0:00 - 0:30	0.50	DRLIN1	04	Α	Р		FIL PIPE WITH AIR AND FLUID.		
	0:30 - 2:30	2.00	DRLIN1	05	Α	Р		PICK UP 5" DRILL PIPE		
	2:30 - 3:00	0.50	DRLIN1	04	Α	Р		DISPLACED HOLE WITH AIR, FOUND WASH OUT AND A TOTAL OF 3 BAD JTS.		
	3:00 - 4:00	1.00	DRLIN1	05	Α	S		LAYED DOWN 3 BAD JTS, AND REPLACE WITH 3 GOOD JTS.		
	4:00 - 5:30	1.50	DRLIN1	04	Α	Р		CIRCULATE HOLE WITH AERIATED MUD, GETTING PARCIAL RETURNS, RIG UP WIRELINE		
	5:30 - 7:00	1.50	DRLIN1	80	Н	P		L/D 1 JT. DRILL PIPE & RIG UP WIRELINE TO RETRIEVE BIT INSERT, RUN BIT INSERT BACK IN HOLE		
	7:00 - 8:00	1.00	DRLIN1	04	Α	Р		HELD SAFTEY MEETING W/ CORE HANDS, ESTABLISH RETURNS		
	8:00 - 9:00	1.00	DRLIN1	80	Н	Р		CORE 24' PUMPING 750CFM @ 30 SPM W/ 430 PSI		
	9:00 - 11:30	2.50	DRLIN1	80	H	S		ATTEMPT TO RETRIEVE 24' OF CORE W/ WIRELINE, ATEMPT FAILED, PUMP DOWN DRILL STRING & ATTEMPT TO RETRIEVE COR AGAIN, ATTEMPT FAILED		
	11:30 - 14:30	3.00	DRLIN1	05	Α	S		TRIP OUT OF HOLE W/ CORE BARREL AND SAMPLE		
	14:30 - 15:30	1.00	DRLIN1	05	В	S		CLEAN OUT SHALE F/ TOP OF CORE BARREL, CHANGE REAL ROD & CHECK BIT		
	15:30 - 21:00	5.50	DRLIN1	05	Α	Р		TRIP IN HOLE TO DRILL NEXT CORE, LOOKING FOR A WASH IN DC'S & DP, WASH & REAM TIGHT SPOTS BETWEEN 2450 & 2900		
	21:00 - 23:30	2.50	DRLIN1	04	D	Р		TRY UNLOADING HOLE WITH AIR & MUD STRING PRESSURED UP,		

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLI			Start Da			End Da		Spud Date: 8/14/2008			
Active Datum: ∟evel)	RKB @6,423.00ft	(above Mea	n Sea	UWI: 0	)/13/S/10	/E/20/0/I	NENE/6/PM/N	PM/N/1,142.00/E/0/0/0/0			
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation			
	23:30 - 0:00	0.50	DRLIN1	10	С	Р	(-7	RIG UP WIRELINE TO PULL CORE BARREL, TOP OF CORE BARREL WAS COVERED UP			
8/24/2008	0:00 - 2:30	2.50	DRLIN1	05	В	Р		TOOH, PLUG CORE BARREL,			
	2:30 - 5:00	2.50	DRLIN1	05	В	P		CORE BARREL PLUGGED WITH LCM, CLEAN OUT INTER BARREL, RUN ACTIVE SYSTEM OVER SHAKERS TO CLEAN MUD			
	5:00 - 6:00	1.00	DRLIN1	05	Α	Р		TRIP IN HOLE WITH BHA & 4 STDS. OF DRILL PIPE, BREAK CIRCULATION			
	6:00 - 6:30	0.50	DRLIN1	06	Α	Р		RIG SERVICE			
	6:30 - 11:30	5.00	DRLIN1	05	Α	Р		FINISH TRIP IN HOLE, REAM LAST 60' TO BOTTOM			
	11:30 - 12:00	0.50	DRLIN1	02	Α	Р		DRILL F/ 3,864' T/ 3,920' 2-5K WOB, 1600 CFM & 20 SPM #1 PUMP = 336 GPM			
	12:00 - 13:30	1.50	DRLIN1	80	Н	Р		RUN IN HOLE W/ WIRELINE, RETRIEVE BIT INSERT & REPLACE W/ CORE BARREL			
	13:30 - 15:00	1.50	DRLIN1	08	Н	P		ESTABLISH RETURNS, CORE #2 F/ 3,920' T/ 3,944' 7K WOB, 50 RPM'S PUMPING 1300 CFM & 10 SPM = 245 GPM			
	15:00 - 16:30	1.50	DRLIN1	08	Н	Р		RUN IN HOLE WITH WIRELINE, RETRIEVE CORE BARREL RECOVERED 24' & REPLACE WITH NEW ONE			
	16:30 - 18:00	1.50	DRLIN1	08	Н	Р		ESTABLISH RETURNS, CORE #3 F/ 3,944' T/ 3,968' 7K WOB, 50 RPM'S PUMPING 1300 CFM 8 10 SPM = 245 GPM			
	18:00 - 20:00	2.00	DRLIN1	80	Н	P		RETRIEVE CORE & RECOVERED 13.7', RUN NEW BARREL IN HOLE			
	20:00 - 21:00	1.00	DRLIN1	08	Н	Р		BRK CIRC. & CORE #4 F/ 3965 T/ 3973 WOB 10k RPM 50 - 60, 1050 CFM, 30 SPM,780 PSI, 287 GPM CORE BARREL JAMMED			
	21:00 - 22:30	1.50	DRLIN1	08	Н	Р		R/U WIRELINE & RETRIEVE CORE, RECOVERED 5.5', RUN CORE BARREL IN HOLE			
	22:30 - 0:00	1.50	DRLIN1	80	Н	Р		BRK CIRC. & CORE F/ 3973 T/3978 WOB 4/10K, RPM 50, 1050 CFM, 30 SPM, 295 GPM,			
8/25/2008	0:00 - 1:30	1.50	DRLIN1	80	Н	P		CORING #5 F/3973 T/3997 WOB 4-8K RPM 50 CFM 1000 30 SPM PSI 570, GPM 285.			
	1:30 - 3:00	1.50	DRLIN1	08	Н	Р		R/U WIRELINE RETRIEVE CORE BARREL, RECOVERED 11', 45%, RUN CORE BARREL BACK IN HOLE			
	3:00 - 4:30	1.50	DRLIN1	08	Н	Р		CORING #6 F/3997-4020' WOB 4-8K RPM 50 CFN 800 25 SPM PSI 550, GPM 235, 50% RETURNS			
	4:30 - 6:30	2.00	DRLIN1	80	Н	P		R/U WIRELINE RETRIEVE CORE BARREL, RECOVERED 20.3 ', 88 % RUN CORE BARREL BACK IN HOLE			
	6:30 - 8:30	2.00	DRLIN1	80	Н	Р		CORING #7 F/4020' T/4035, WOB 4-8K, RPM 50, DRILL WITH WATER ONLY 30 SPM, 135 GPM			
	8:30 - 10:00	1.50	DRLIN1	80	Н	Р		R/U WIRELINE RETRIEVE CORE BARREL, RECOVERED 13.2', 88%			
	10:00 - 13:00	3.00	DRLIN1	80	Н	Р		CORE #8 F/4035 T/4052', WOB 5-12, RPM 40, SPM 40/45 SPM, 179/202 GPM			
	13:00 - 14:00	1.00	DRLIN1	80	Н	Р		R/U WIRELINE RETRIEVE CORE BARREL,RECOVERED 17.6, 103%			
	14:00 - 18:00	4.00	DRLIN1	04	D	Р		GOT RETURNS W/1600 CFM, 10 SPM, FILLED ALL SURFACE TANKS & RESERVE PIT			
	18:00 - 18:30	0.50	DRLIN1	80	Н	Р		CORE #9 F/4052 T/4070', WOB 7-8K, RPM 49, PSI 27, SPM 40			
	18:30 - 20:00	1.50	DRLIN1	80	Н	Р		R/U WIRELINE RETRIEVE CORE BARREL, RECOVERED 13.8, 76%			
	20:00 - 21:00	1.00	DRLIN1	08	Н	Р		CORE #10, F/4070 T/4085 WOB 5-13, PSI 27/500 TQ 2/1, 45 RPM			

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
	21:00 - 22:30	1.50	DRLIN1	08	Н	Р	(17)	R/U WIRELINE RETRIEVE CORE BARREL,RECOVERED 0.0' 0%
	22:30 - 0:00	1.50	DRLIN1	05	Α	Р		TOOH FOR CORE BIT
8/26/2008	0:00 - 1:30	1.50	DRLIN1	05	Α	Р		TOOH FOR CORE BIT, CHANGE OUT CORE BITS,INSTALL INSERT BIT TO KEEP BARREL CLEAN
	1:30 - 4:00	2.50	DRLIN1	05	Α	Р		TIH TO CORE, HIT BRIDGE @ 2275
	4:00 - 6:00	2.00	DRLIN1	03	Α	Х		WASH & REAM F/2275 T/29
	6:00 - 8:00	2.00	DRLIN1	05	Α	Р		FINISH TRIP IN HOLE REAM 60' TO BTM
	8:00 - 8:30	0.50	DRLIN1	04	D	Р		GOT RETURNS W/1800 CFM & 10 SPM
	8:30 - 10:00	1.50	DRLIN1	08	Н	Р		R/U WIRELINE RETRIEVE INSERT BIT & RUN CORE BARREL
	10:00 - 11:00	1.00	DRLIN1	08	Н	Р		CORE #11 F/4066 T/4076 WOB 12, RPM 50 SPN 50
	11:00 - 11:30	0.50	DRLIN1	03	Α	P		BACK REAM 15' TO PULL CORE BARREL
	11:30 - 13:30	2.00	DRLIN1	80	Н	Р		R/U WIRELINE, PULL CORE #11 RECOVERED SANDSTONE
	13:30 - 19:00	5.50	DRLIN1	02	Α	Р		DRLG F/ 4076 T/ 4160 WOB 9 CFM 1100, GPM 350, PUMP#1 40 SPM, ON/OFF BTM 600/330
	19:00 - 20:00	1.00	DRLIN1	04	Α	P		CIRC & CONDITION HOLE TO LAY DOWN 5" R LAYDOWN MACHINE HELD SAFETY MEETING WEATHERFORD
	20:00 - 22:30	2.50	DRLIN1	05	В	Р		LAY DOWN 5" DP FRIST TO STD TIGHT
	22:30 - 23:00	0.50	DRLIN1	05	В	Р		PULL ROTATING HEAD
	23:00 - 0:00	1.00	DRLIN1	05	В	Р		LAY DOWN BHA
8/27/2008	0:00 - 1:30	1.50	DRLIN1	05	Α	Р		LAY DOWN DRILL 5" PIPE & COLLARS
	1:30 - 2:00	0.50	DRLIN1	05	Α	Р		RIG DOWN LAWDOWN MACHINE
	2:00 - 4:00	2.00	DRLIN1	08	Α	Р		R/U HALCO LOGGERS, HELD SAFETY MEETING, LOGGING, HIT BRIDGE @ 1960, FLUID LEVEL @ 1600'
	4:00 - 5:30	1.50	DRLIN1	08	Α	Х		HALCO PULL OUT OF HOLE , RIG DOWN
	5:30 - 7:00	1.50	DRLIN1	05	Α	S		CHANGE OUT SAVER SUB ON TOP DRIVE,
	7:00 - 12:00	5.00	DRLIN1	05	F	Р		Load out 5" coring DP. Strap and pickup 27 joints DP
	12:00 - 12:30	0.50	DRLIN1	06	Α	Р		Rig Service
	12:30 - 14:30	2.00	DRLIN1	07	В			Rig repair - hydraulic hose on lift cylinder fro grabber on top drive
	14:30 - 22:00	7.50	DRLIN1	03	Α	Х		Make up bit, bit sub, 1 DC and TIH w/ HWDP & D tagged bridge at 1960'. Ream through bridges at 1960', 2027', 2276'-2858'
	22:00 - 22:30	0.50	DRLIN1	05	F	Χ		TIH, tagged ledge/bridge at 3331'
	22:30 - 0:00	1.50	DRLIN1	03	Α	X		Wash and ream 3331' - 3525' w/ 1400 scfm air ar 90 gpm water
8/28/2008	4:00 - 7:00	3.00	DRLIN1	04	Α	Χ		Circulate and condition hole for logs at 4160
	7:00 - 7:30	0.50	DRLIN1	80	F	Р		Rig up Weatherford for slim hole logging, tool and log through DP. Loggers TD 4168'. Rig TD 4160 No correction were made
	7:30 - 10:00	2.50	DRLIN1	80	F	Р		Log well w/ Weatherford's slim hole Gamma Ray and collar locator log through DP. Loggers TD 4168'. Rig TD 4160'. No correction were made
	10:00 - 13:30	3.50	DRLIN1	05	С	P		TOOH w/ bit #6, LD 6.25" DC, bit & bit sub
	10:05 - 4:00		DRLIN1	03	E	X		Wash and ream 3331' - 4160', WOB 10K, AIR = 1400 SCFM, GPM = 90, PUMP #1 = 20 SPM, PUMP #2 = 0 SPM, 40 RPM, PRESS ON - OFF BTM = 350 PSI, TORQ ON - OFF BTM = 5K - 12

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298 Event: DRILLING Start Date: 7/30/2008 Spud Date: 8/14/2008

Event: DRILLI	NG		Start Date: 7/30/2008 End				End Date: Spud Date: 8/14/2008			
Active Datum: Level)	RKB @6,423.00ft	(above Mea	n Sea	UWI: 0	)/13/S/10	/E/20/0/	NENE/6/PM/N/	1,142.00/E/0/0/0/0		
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation		
	13:30 - 14:30	1.00	DRLIN1	05	С	Х	· · · · · · · · · · · · · · · · · · ·	TIH open ended for plugging operations, tagged		
	14:30 - 15:00	0.50	DRLIN1	05	С	X		bridge at 1960' Hit bridge at 1960, tried to work through, unsuccessful, pickup and install rotating head		
	15:00 - 22:30	7.50	DRLIN1	03	Е	X		Wash and ream through bridges at 1960, 2020', 2323', 2430', 2510', and several others		
	22:30 - 23:30	1.00	DRLIN1	05	F	X		TIH 3100' - 3400'		
	23:30 - 23:30	0.00	DRLIN1	03	E	Х		Continue to wash and ream through tight spot from 3400' - 3420'		
8/29/2008	0:00 - 1:30	1.50	DRLIN1	03	E	X		Wash and ream 3400' - 3600', WOB 10K, AIR = 1400 SCFM, GPM = 90, PUMP #1 = 20 SPM, PUMP #2 = 0 SPM, 50 RPM, PRESS ON - OFF BTM = 350 PSI, TORQ ON - OFF BTM =5K - 8K, MUD WT = 8.4, VIS = 27		
	1:30 - 2:30	1.00	DRLIN1	04	Α	Х		Circulate and condition hole w/ 1500 scfm airand 90 GPM water		
	2:30 - 3:30	1.00	DRLIN1	04	Α	Х		HSM w/ Superior Cementers and rig up		
	3:30 - 4:30	1.00	DRLIN1	15	E	Р		Mix and pump 175 sack class "G" cement (29.2 Bbls) balance formation isolation plug from 3600' - 3300'		
	4:30 - 5:00	0.50	DRLIN1	05	С	Ρ		TOOH 3 stands to 3309'		
	5:00 - 6:30	1.50	DRLIN1	04	Α	Р		Circulate at 3309' to clear excess cement from wellbore		
	6:30 - 7:00	0.50	DRLIN1	15	E	Р		Mix and pump 170 sack class "G" cement (28.4 Bbls) balance formation isolation plug from 3300' - 3000'		
	7:00 - 7:30	0.50	DRLIN1	05	С	P		TOOH 8 stands to 2552'		
	7:30 - 9:00	1.50	DRLIN1	04	Α	Р		Circulate and condition abd dump 5 gallons polyswell down drill pipe		
	9:00 - 9:30	0.50	DRLIN1	15	E	Р		Mix and pump 50 sack (18 bbls) Thix-O-Tropic cement to try healing up loss circulation zone		
	9:30 - 14:30	5.00	DRLIN1	04	A	P		TOOH 4 stands to get above cement and circulate w/ 1200 scfm air and 90 GPM water		
	14:30 - 15:00	0.50	DRLIN1	05	С.	Р		TIH to 2615' and did not tag any cement in well bore, pulled back to 2488'		
	15:00 - 17:00	2.00	DRLIN1	04	A	Р		Circulate w/ 1200 scfm air for 1 hour after circulate was acheived		
	17:00 - 17:30 17:30 - 18:00	0.50 0.50	DRLIN1 DRLIN1	15 05	E C	P P		Mix and pump 50 sacks (18 bbls) Thix-O-Tropic cement to try healing loss circulation zone TOOH 6 stands to get above cement		
	18:00 - 0:00	6.00	DRLIN1	12	В	Р		Wait on cement to set at 1966'		
8/30/2008	0:00 - 1:00	1.00	DRLIN1	12	В	X		Work pipe 1891' - 1986' while waiting on cement to set		
	1:00 - 1:30	0.50	DRLIN1	05	С	X		TIH, tagged at 2506'		
	1:30 - 3:30	2.00	DRLIN1	04	Α	Χ		Blow hole dry w/ 1200 scfm air at 2488'		
	3:30 - 4:00	0.50	DRLIN1	15	Α	Χ		Mix and pump 100 sacks class "G" w/ .25 #/sk Superflake and 2% CaCl2, yeild 1.15, Water 5.0 gallons per sack		
	4:00 - 4:30	0.50	DRLIN1	05	С	Χ		TOOH 6 stands to 1986'		
	4:30 - 7:00	2.50	DRLIN1	12	В	X		Work pipe 1891' - 1986' while waiting on cement to set		
	7:00 - 9:30	2.50	DRLIN1	05	С	Χ		TIH tagged at 2506', had to use air from 2320' - 2506'		
	9:30 - 10:00	0.50	DRLIN1	04	Α	Χ		Circulate while rigging down Superior cementing services		
	10:00 - 11:30	1.50	DRLIN1	05	С	X		TOOH for directional tools. Laid down bottom joint of DP, pin and shoulder was well worn from working through bridges		

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLI	NG ————————————————————————————————————		Start Da					Spud Date: 8/14/2008		
Active Datum: Level)	RKB @6,423.00ft	(above Mea	n Sea	UWI: 0	)/13/S/10	/E/20/0/	NENE/6/PM/N/	1,142.00/E/0/0/0/0		
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation		
	11:30 - 13:00	1.50	DRLIN1	06	D	P	(1.5)	Cut drilling line		
	13:00 - 13:30	0.50	DRLIN1	06	Α	Р		Rig Service		
	13:30 - 14:30	1.00	DRLIN1	05	Α	Р		Lay down stand drill collars		
	14:30 - 19:00	4.50	DRLIN1	05	Α	Р		Pickup and make up Weatherfords directional tools and TIH		
	19:00 - 19:30	0.50	DRLIN1	05	Α	Р		Install rotating head		
	19:30 - 20:00	0.50	DRLIN1	05	Α	Р		TIH, tagged bridge at 2200'		
	20:00 - 0:00	4.00	DRLIN1	03	E	Р		Wash and ream 2200' - 2506', WOB 5k - 10K, AIR = 1000 SCFM, GPM = 265, PUMP #1 = 82 SPM, PUMP #2 = 0 SPM, RPM = 40, PRESS ON - OFF BTM = 400 PSI, TORQ ON - OFF BTM =1K - 6K, MUD WT = 8.4, VIS = 27		
8/31/2008	0:00 - 0:30	0.50	DRLIN1	05	Н	Χ		Bit plugged, TOOH to un-plug		
	0:30 - 1:00	0.50	DRLIN1	05	Н	Х		Pull rotating head		
	1:00 - 1:30	0.50	DRLIN1	05	Н	Х		TOOH to monel DC		
	1:30 - 3:30	2.00	DRLIN1	05	Н	X		Un-plug bit and change out motors and scribe. Bit full of cement and shale		
	3:30 - 4:30	1.00	DRLIN1	05	Н	Χ		TIH		
	4:30 - 5:00	0.50	DRLIN1	05	Н	Χ		Install rotating head		
	5:00 - 14:00	9.00	DRLIN1	03	Е	×		Wash and ream 1836' - 2060', WOB 5k - 10K, AIR = 1000 SCFM, GPM = 180, PUMP #1 = 50 SPM, PUMP #2 = 0 SPM, RPM = 40, PRESS ON - OFF BTM = 350 PSI, TORQ ON - OFF BTM =1K - 4K, MUD WT = 8.4, VIS = 27 Tagged cement at 2697' - 3044'. Fell free from plug and tagged at 3700'		
	14:00 - 16:00	2.00	DRLIN1	05	С	S		TOOH w/ directional tools		
	16:00 - 19:30 19:30 - 20:00	3.50 0.50	DRLIN1	05 04	C A	s s		TIH open ended. Picked up bad joint from previous plugging job for bottom joint. Tagged at 3700' and fell through, went in to 3723', w/ 30k set down weight, it was sliding slowly down.  Attempted to break circulation, pipe pressured up.		
	20:00 - 20:30	0.50	DRLIN1	04	^	Ü		Plugged pipe, could not break loose.		
	20:30 - 21:30	1.00	DRLIN1	05	С	S		TOOH to un-plug pipe. Un-plug bottom joint of DP, had about 10' cement and shale in pipe. Pull rotating head		
	21:30 - 22:00	0.50	DRLIN1	05	С	S		Clean rig floor		
	22:00 - 23:30	1.50	DRLIN1	05	С	S		TIH to 3700'		
	23:30 - 0:00	0.50	DRLIN1	04	Α	S		Break circulation w/ air and circulate while rigging up cementers. Takes about 45 minutes to acheive circulation after sending air down hole		
9/1/2008	0:00 - 1:30	1.50	DRLIN1	04	Α	X		Circulate while rigging up cementers		
	1:30 - 2:30	1.00	DRLIN1	15	Α	Х		Pump 175 sacks plug at 3714'		
	2:30 - 3:30	1.00	DRLIN1	04		Χ		TOOH 6 stands and wash through pipe and continue to pull total of 14 stands		
	3:30 - 7:30	4.00	DRLIN1	12	В	P		Wait on cement plug to set		
	7:30 - 9:30	2.00	DRLIN1	05	C	P		TIH to tag cement. Driller created a birds nest in drilling line		
	9:30 - 10:00	0.50	DRLIN1	06	A	S		Rig Service		
	10:00 - 12:00	2.00	DRLIN1	07	Α	S		Perform JSA do to drum back lash. Set top drive in slips and came down slowly, straighten drill line and then came uo to dock top drive in upper docking point		
	12:00 - 12:30	0.50	DRLIN1	07	Α	S		Stand 1 stand back in derrick to assist in calibrating top drive and draw works		

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILL	ING		Start Da	te: 7/30/	2008	End D	ate:	Spud Date: 8/14/2008
	Active Datum: RKB @6,423.00ft (above Mean				/13/S/10	/E/20/0/	NENE/6/PM/N/1	142.00/E/0/0/0/0
Level)  Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
	12:30 - 14:30	2.00	DRLIN1	03	E	Р	(.9	Continue to clean out to plug, tagged at 3246'
	14:30 - 15:00	0.50	DRLIN1	15	Е	Р		Pump 170 sack cement plug at 3246'
	15:00 - 17:30	2.50	DRLIN1	05	Α	Р		TOOH for directional tools
	17:30 - 18:00	0.50	DRLIN1	05	Α	Р		Pull rotating head
	18:00 - 18:30	0.50	DRLIN1	05	Α	P		Inspect and lay down single joint of drill pipe and put extra bolts in flow meter
	18:30 - 20:00	1.50	DRLIN1	05	A	Р		Make up bit, scribe mud motor, set MWD tool and TIH w/ directional tools
	20:00 - 20:30	0.50	DRLIN1	05	A	P		Install rotating head
	20:30 - 22:00	1.50	DRLIN1	05	A	P -		TIH, tagged w/ 20k at 2659'.
0/0/0000	22:00 - 0:00 0:00 - 1:30	2.00	DRLIN1	02	E	Р		Drill cemet 2559' - 2865', WOB 5k - 8K, AIR = 1000 SCFM, GPM = 320, PUMP #1 = 0 SPM, PUMP #2 = 70 SPM, RPM = 40, PRESS ON - OFF BTM = 450 PSI , TORQ ON - OFF BTM = 3K - 2K, MUD WT = 8.3, VIS = 28, Footage = 2067, FPH = 103
9/2/2008		1.50	DRLIN1	02	G	P		Drill cemet 2865' - 2992', WOB 5k - 8K, AIR = 1000 SCFM, GPM = 320, PUMP #1 = 0 SPM, PUMP #2 = 70 SPM, RPM = 40, PRESS ON - OFF BTM = 450 PSI , TORQ ON - OFF BTM = 3K - 2K, MUD WT = 8.3, VIS = 28, Footage = 127', FPH = 84.67
	1:30 - 2:30	1.00	DRLIN1	02	G	P -		Work pipe to get good MTF
	2:30 - 13:30 13:30 - 14:00	11.00 0.50	DRLIN1	02 06	D A	P P		Time Drill 2992' - 3045', WOB 2k - 3K, AIR = 1000 SCFM or 153 GPM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 0, MOTOR RPM = 132, PRESS ON - OFF BTM = 450 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.3, VIS = 28, Footage = 53', FPH = 4.8 Rig Service
	14:00 - 0:00	10.00	DRLIN1	02	D	Р		Time Drilling and sliding 3045' - 3099', WOB 5k -
	0.00	10.00	Diversity	Ü.	J	•		10K, AIR = 1000 - 1100 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 0, MOTOR RPM = 132, PRESS ON - OFF BTM = 309 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.7, VIS = 34, Footage = 53', FPH = 5.4
9/3/2008	0:00 - 6:30	6.50	DRLIN1	02	D	P		Slide Drilling 3099' - 3205', WOB 5K - 9K, AIR = 1000 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 0, MOTOR RPM = 132, PRESS ON - OFF BTM = 356 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.5, VIS = 34, Footage = 106', FPH = 16.3
	6:30 - 8:30	2.00	DRLIN1	02	D	P		Rotate Drilling 3205' - 3265', WOB 5K - 9K, AIR = 1000 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 40, MOTOR RPM = 132, PRESS ON - OFF BTM = 360 PSI, TORQ ON/OFF BTM =2-3K, MUD WT = 8.5, VIS = 34, Footage = 106', FPH = 16.3
	8:30 - 9:00	0.50	DRLIN1	02	D	P		Slide Drilling 3265' - 3297', WOB 5K - 9K, AIR = 1000 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 0, MOTOR RPM = 132, PRESS ON - OFF BTM = 400 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.5, VIS = 34, Footage = 32', FPH = 64
	9:00 - 11:00	2.00	DRLIN1	02	D	Р		Rotate Drilling 3297' - 3391', WOB 5K - 9K, AIR = 1000 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 40, MOTOR RPM = 132, PRESS ON - OFF BTM = 360 PSI, TORQ ONOFF BTM =2-3K, MUD WT = 8.5, VIS = 34, Footage = 94', FPH = 47

11/3/2008 10:03:25AM

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILL	ING		Start Da	ate: 7/30	/2008	End Da	ate:	Spud Date: 8/14/2008		
	: RKB @6,423.00ft	(above Mea	n Sea	UWI: 0	0/13/S/10	/E/20/0/	NENE/6/PM/N	I/1,142.00/E/0/0/0/0		
Level)  Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation		
	11:00 - 11:30	0.50	DRLIN1	02	D	Р	(.9	Slide Drilling 3391' - 3405', WOB 5K - 9K, AIR = 1000 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 0, MOTOR RPM = 132, PRESS ON - OFF BTM = 400 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.5, VIS = 34, Footage = 14', FPH = 28		
	11:30 - 13:30	2.00	DRLIN1	02	D	Р		Rotate Drilling 3405' - 3486', WOB 3K - 8K, AIR = 1000 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 40, MOTOR RPM = 132, PRESS ON - OFF BTM = 360 PSI, TORQ ON/OFF BTM = 2K - 4k, MUD WT = 8.5, VIS = 34, Footage = 81', FPH = 40.5		
	13:30 - 14:00	0.50	DRLIN1	02	D	Р		Slide Drilling 3486' - 3508', WOB 5K - 9K, AIR = 1000 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 0, MOTOR RPM = 132, PRESS ON - OFF BTM = 400 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 22', FPH = 44		
	14:00 - 15:30	1.50	DRLIN1	02	D	Р		Rotate Drilling 3508' - 3549', WOB 3K - 8K, AIR = 1100 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 40, MOTOR RPM = 132, PRESS ON - OFF BTM = 396 PSI, TORQ ON/OFF BTM = 2-4K, MUD WT = 8.6, VIS = 34, Footage = 41', FPH = 27.3		
	15:30 - 17:00	1.50	DRLIN1	02	D	Р		Slide Drilling 3549' - 3612', WOB 5-9K, AIR = 1200 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 0, MOTOR RPM = 132, PRESS ON - OFF BTM = 400 PSI, TORQ OWOFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 63', FPH = 42		
	17:00 - 17:30	0.50	DRLIN1	06	Α	Р		Rig Service		
	17:30 - 18:00	0.50	DRLIN1	02	D	Р		Rotate Drilling 3612' - 3644', WOB 3K - 9K, AIR = 1200 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 40, MOTOR RPM = 132, PRESS ON - OFF BTM = 494-396 PSI, TORQ ON/OFF BTM =2-4K, MUD WT = 8.6, VIS = 34, Footage = 32', FPH = 64		
	18:00 - 19:00	1.00	DRLIN1	02	D	Р		Slide Drilling 3644' - 3676', WOB 20K, AIR = 1200 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 0, MOTOR RPM = 132, PRESS ON - OFF BTM = 353-297 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 31', FPH = 31		
	19:00 - 20:30	1.50	DRLIN1	02	D	P		Rotate Drilling 3676' - 3739', WOB 6K - 15K, AIR = 1200 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 40, MOTOR RPM = 132, PRESS ON - OFF BTM = 396-342 PSI, TORQ ON/OFF BTM =2-4K, MUD WT = 8.6, VIS = 34, Footage = 63', FPH = 42		
	20:30 - 22:00	1.50	DRLIN1	02	D	Р		Slide Drilling 3739' - 3788', WOB 6-10K, AIR = 1200 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 0, MOTOR RPM = 132, PRESS ON - OFF BTM = 353-297 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 49', FPH = 32.6		
	22:00 - 23:00	1.00	DRLIN1	02	D	P		Rotate Drilling 3788' - 3833', WOB 6-15K, AIR = 1200 SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #2 = 75 SPM, RPM = 40, MOTOR RPM = 132, PRESS ON - OFF BTM = 430-344 PSI, TORQ ON/OFF BTM =2-4K, MUD WT = 8.6, VIS = 34, Footage = 63', FPH = 42		

10:03:25AM 11/3/2008

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

SCFM, GPM = 337, PUMP #1 = 0 SPM, PUMP #3   75 SPM, RPM = 386, M2 OF FBTM = 386, S50 PSI, TORQ ONOFF BTM = 375 SPM, RPM = 386, W15 = 35, Footage = 1 FPH = 12 SPM, PUMP #1 = 0 SPM, PUMP #2 = 0 SPM, PUMP #1 = 0 SPM, PUMP #2 = 0 SPM, PUMP #1 = 0 SPM, PUMP #2 = 0 SPM, PUMP #1 = 0 SPM, PUMP #2 = 0 SPM, PUMP #1 = 0 SPM, PUMP #2 = 0 SPM, PUMP #1 = 0 SPM, PUMP #2 = 0 SPM, PUMP #1 = 0 SPM, PUMP #2 = 0 SPM, PUMP #1 = 0 SPM, PUMP #2 = 0 SPM, PUMP #1 = 0 SPM, PUMP #2 = 0 SPM, PUMP #1 = 0 SPM, PUMP #2 = 0 SPM, PUMP #1 = 0 SPM, PUMP #2 = 0 SPM, PUMP #1 = 0 SPM, PUMP #2 = 0 SPM, PUMP #1 =	Active Datum: Level)	RKB @6,423.00ft	(above Mea	n Sea	1	)/13/S/10	/E/20/0/		/1,142.00/E/0/0/0/0
23:00 - 0:00				Phase	Code		P/U		Operation
SCFM, GPM = 33, PUMP #1 = 0 SPM, PUMP #1   0 SPM, PUMP #1 = 0 SPM, PUMP #1   0 SPM, PUMP #1 = 0 SPM, PUMP #2 = 0 SPM, PUMP #2 = 0 SPM, PMP = 3 S, NICOR PUMP #1 = 0 SPM, PUMP #2 = 0 SPM, PMP = 3 S, NICOR PUMP #1 = 0 SPM, PUMP #2 = 0 SPM, PMP = 3 S, NICOR PUMP #1 = 0 SPM, PUMP #2 = 0 SPM, PMP = 3 S, NICOR PUMP #1 = 0 SPM, PUMP #2 = 0 SPM, PMP = 3 S, NICOR PUMP #1 = 0 SPM, PUMP #2 = 0 SPM, PMP = 3 S, NICOR PUMP #1 = 0 SPM, PUMP #2 = 0 SPM, PMP = 3 S, NICOR PUMP #1 = 0 SPM, PUMP #2 = 0 SPM, PMP = 44-288 PM, PMP #2 = 0 SPM, PMP = 44-288 PM, PMP #2 = 0 SPM, PMP = 44-288 PM, PMP #2 = 0 SPM, PMP = 44-288 PM, PMP #2 = 0 SPM, PMP #1 = 0 SPM, PMP = 3 S, NICOR PMP = 3 S,				DRLIN1	02		Р	(3)	BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 12',
6.30	9/4/2008		5.00	DRLIN1	02	D	Р		BTM =0K, MUD WT = 8.6, VIS = 35, Footage =
7:30 - 13:00		5:00 - 6:30	1.50	DRLIN1	04	С	Р		
13:00 - 15:30		6:30 - 7:30	1.00	DRLIN1	05	Α	Р		TOOH to 3967' - 2951' (10 stands)
13:00 - 15:30		7:30 - 13:00	5.50	DRLIN1	80	F	Р		Run Gamma Ray log from 2985' - 3280'
15:30 - 18:00   2.50   DRLIN1   05   A   P   Change BHA. L/D NMDC, Gamma Ray, break b   18:00 - 18:30   0.50   DRLIN1   06   A   P   Rig Service		13:00 - 15:30	2.50	DRLIN1	05	Α	Р		
18:00 - 18:30		15:30 - 18:00	2.50	DRLIN1	05	Α	Р		Change BHA. L/D NMDC, Gamma Ray, break bit
18:30 - 0:00   5.50   DRLIN1   05   A   P   Make up bit, adjust bend in motor from 1.83 to 2 and scribe same. Pickup 3 DC and rack in derric TiH and pickup 6 DC. Install rotating head.		18:00 - 18:30	0.50		06	Α	Р		•
1:30 - 4:30					05		Р		Make up bit, adjust bend in motor from 1.83 to 2.12 and scribe same. Pickup 3 DC and rack in derrick,
1600 scfm. As soon as we started getting circulation one of the air compressors went down with the air compressor with the air	9/5/2008		1.50	DRLIN1	05	Α	Р		TIH, pickup total of 9 DC and install rotating head
toward bottom w/ 1000 scfm air and 105 gpm. Attempt to slide at 3967', unseccessful, wait on ruto change out compressors  9:00 - 11:30			3.00	DRLIN1	04	D	Р		Fill pipe and break circulation, had to increase air to 1600 scfm. As soon as we started getting circulation one of the air compressors went down
SCFM, GPM = 225, PUMP #1 = 0 SPM, PUMP # 50 SPM, RPM = 0, MOTOR RPM = 117, PRESS ON - OFF BTM = 268 PSI , TORQ ONVOFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 44', FF =17.6  11:30 - 12:00		4:30 - 9:00	4.50	DRLIN1	03	E	S		Attempt to slide at 3967', unseccessful, wait on ruck
11:30 - 12:00		9:00 - 11:30	2.50	DRLIN1	02	D	Р		Slide Drilling 3967' - 4011', WOB 5-15K, AIR = 1600 SCFM, GPM = 225, PUMP #1 = 0 SPM, PUMP #2 = 50 SPM, RPM = 0, MOTOR RPM = 117, PRESS ON - OFF BTM = 268 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 44', FPH = 17.6
12:00 - 13:00		11:30 - 12:00	0.50	DRLIN1	02	D	P		Rotate Drilling 4011' - 4018', WOB 20K - 25K, AIR = 1600 SCFM, GPM = 225, PUMP #1 = 0 SPM, PUMP #2 = 50 SPM, RPM = 40, MOTOR RPM = 117, PRESS ON-OFF BTM = 550-488 PSI, TORQ ON/OFF BTM =6-2K, MUD WT = 8.5, VIS = 35,
13:00 - 13:30		12:00 - 13:00	1.00	DRLIN1	02	D	Р		1200-1600 SCFM, GPM = 225-292, PUMP #1 = 0 SPM, PUMP #2 = 50-65 SPM, RPM = 0, MOTOR RPM = 133, PRESS ON - OFF BTM = 4/4-268 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS =
ON/OFF BTM =9-2K, MUD WT = 8.5, VIS = 35,		13:00 - 13:30	0.50	DRLIN1	02	D	Р		Rotate Drilling 4020' - 4028', WOB 25K - 75K, AIR = 1200 SCFM, GPM = 292, PUMP #1 = 0 SPM, PUMP #2 = 65-75 SPM, RPM = 35, MOTOR RPM = 133, PRESS ON-OFF BTM = 488-404 PSI, TORQ ON/OFF BTM =9-2K, MUD WT = 8.5, VIS = 35, Footage = 8', FPH = 16. Hard spot would not slide
13:30 - 14:00 0.50 DRLIN1 09 D P Circulate and directional survey		13:30 - 14:00	0.50	DRLIN1	09	D	Р		

13 11/3/2008 10:03:25AM

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

Event: DRILLI	NG		Start Da	te: 7/30	/2008	End D	ate:	Spud Date: 8/14/2008
Active Datum: Level)	, , , , , , , , , , , , , , , , , , , ,							1,142.00/E/0/0/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
	14:00 - 22:00	8.00	DRLIN1	02	D	Р		Slide Drilling 4028' - 4082', WOB 5-70K, AIR = 1000 SCFM, GPM = 342, PUMP #1 = 0 SPM, PUMP #2 = 80 SPM, RPM = 0, MOTOR RPM = 138, PRESS ON - OFF BTM = 460-382 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 54', FPH = 6.75
	22:00 - 0:00	2.00	DRLIN1	04	С	Р		Circulate hole prior to trip
9/6/2008	0:00 - 4:00	4.00	DRLIN1	05	Α	S		TOOH, pull rotating head, LD NMDC and break bit
	4:00 - 4:30	0.50	DRLIN1	05	Α	S		Monitor well, gas bubble excaping and let it vent
	4:30 - 5:00	0.50	DRLIN1	05	Α	S		L/D Mud motor and NMDC, set MWD tools in v-door
	5:00 - 20:30	15.50	DRLIN1	12	E	S		Wait on directional tools
	20:30 - 23:00	2.50	DRLIN1	05	A	P		Pickup mud motor w/ 2.6 degree bend make up bit re-run #7, make up MWD tools and scribe, install MWD survey tool, pickup flex NMDC and make up
	23:00 - 23:30	0.50	DRLIN1	07	A	S		Repair hose on ST-80
0/7/0000	23:30 - 0:00	0.50	DRLIN1	05 05	A	Р		TIH slow due to 2.6 bend hanging up on wall
9/7/2008	0:00 - 3:00	3.00	DRLIN1	05	Α .	P		TIH, slow due to bit hanging up on wall, tagged 40' fill
	3:00 - 4:00	1.00	DRLIN1	04	Α	Р		Break circulation, wash and ream 40' to bottom
	4:00 - 9:30	5.50	DRLIN1	02	D	Р		Drilling sliding 4082' - 4155', WOB 18-25K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 0, MOTOR RPM = 139, PRESS ON - OFF BTM = 584 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 73', FPH = 13.3
	9:30 - 10:30	1.00	DRLIN1	04	С	Р		Circulate and condition hole for trip
	10:30 - 11:00	0.50	DRLIN1	05	Α	Р		TOOH, tight at 4075', just above sharp bend, acts like coal sloughing in
	11:00 - 12:30	1.50	DRLIN1	05	Α	S		Work tight hole 4075' - 4035', establish circulation while working tight hole
	12:30 - 14:30	2.00	DRLIN1	05	Α	Р		TOOH to change BHA
	14:30 - 15:30	1.00	DRLIN1	05	Α	Р		Break NMDC and mouse hole. Drain Motor and adjust motor to 2.12 degrees
	15:30 - 16:00	0.50	DRLIN1	05	Α	Р		Orient and scribe motor
	16:00 - 16:30	0.50	DRLIN1	06	Α	Р		Rig Service
	16:30 - 20:00	3.50	DRLIN1	05	Α	Р		TIH to 4077', install rotating head
	20:00 - 22:30	2.50	DRLIN1	03	D	Р		Break circulation, wash and ream 4077' to
	22:30 - 23:00	0.50	DRLIN1	02	D	Р		Drilli rotating 4155' - 4165', WOB 40K, AIR = 1800 SCFM, GPM = 243, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 40, MOTOR RPM = 145, PRESS ON - OFF BTM = 700-500 PSI, TORQ ON/OFF BTM =4-2K, MUD WT = 8.6, VIS = 35, Footage = 10', FPH = 20
	23:00 - 0:00	1.00	DRLIN1	02	D	Р		Drilling sliding 4165' - 4180', WOB 40K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 0, MOTOR RPM = 145, PRESS ON - OFF BTM = 500-300 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 15', FPH = 15
9/8/2008	0:00 - 0:30	0.50	DRLIN1	02	D	Р		Drilling sliding 4180' - 4186', WOB 40K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 0, MOTOR RPM = 145, PRESS ON - OFF BTM = 500-300 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 15', FPH = 15

11/3/2008 10:03:25AM

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

57 SPM, RPM = 0, MOTOR RPM = 145, PRESS ON - OFF BTM = 537-523 PSI , TORQ ON/OFF BTM = 0K, MUD WT = 8.6, VIS = 35, Footage = 20', FPH = 13.3  5:00 - 5:30	Event: DRILLIN	IG		Start Da	te: 7/30	/2008	End Da	ate:	Spud Date: 8/14/2008
Start-End   (ny)		evel)					/E/20/0/I	NENE/6/PM/N/1	,142.00/E/0/0/0/0
DRILIN1   Color   DRILIN1	Date		1 1	Phase	Code		P/U		Operation
SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 0, MOTOR RPM = 145, PRESS ON - OFF BTM = 537-623 BS1, TORQ ONOFF BTM = 0.00 SPM, PUMP #2 = 57 SPM, RPM = 0, MOTOR RPM = 145, PRESS ON - OFF BTM = 537-623 BS1, TORQ ONOFF BTM = 0.00 SPM, PUMP #2 = 57 SPM, PUMP #2 = 57 SPM, PUMP #2 = 57 SPM, RPM = 0, MOTOR RPM = 145, PRESS ON - OFF BTM = 522-512 PS1, TORQ ONOFF BTM = 532-512 PS1, TORQ ONOFF BTM = 532-512 PS1, TORQ ONOFF BTM = 532-512 PS1, TORQ ONOFF BTM = 532-623 BS1, PRESS ON - OFF BTM = 532-512 PS1, TORQ ONOFF BTM = 537-623 BS1, PRESS ON - OFF BTM = 537-623 BS1, PRESS		0:30 - 1:00		DRLIN1	02	4	P	(ii)	1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 40, MOTOR RPM = 145, PRESS ON - OFF BTM = 535-512 PSI , TORQ ONOFF BTM =8-3K, MUD WT = 8.6, VIS = 35,
1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 40, MOTOR RPM = 145, PRESS ON -0 FF BTM = 522-512 PSI, TORQ ONOFF BTM = 534, MUD WT = 86, VIS = 35, Footage = 10′, FPH = 20		1:00 - 3:00	2.00	DRLIN1	02	D	Р		SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 0, MOTOR RPM = 145, PRESS ON - OFF BTM = 537-523 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 24',
SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 0, MOTOR RPM = 145, PRESS ON - OFF BTM = 537-523 PSI, TORQ ONOFF BTM = 538, MID WT = 8.6, VIS = 35, Footage = 20', FPH = 13.3		3:00 - 3:30	0.50	DRLIN1	02	D	Р		1800 SCFM, ĞPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 40, MOTOR RPM = 145, PRESS ON - OFF BTM = 522-512 PSI , TORQ ON/OFF BTM =8-3K, MUD WT = 8.6, VIS = 35,
5:00 - 5:30		3:30 - 5:00	1.50	DRLIN1	02	D	Р		Drilling sliding 4230' - 4250', WOB 40K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 0, MOTOR RPM = 145, PRESS ON - OFF BTM = 537-523 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 20',
SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 0, MOTOR RPM = 145, PRESS ON - OFF BTM = 537-523 PS1, TORQ ON/OFF BTM = 06, MUD WT = 8.6, VIS = 35, Footage = 36', FPH = 24  7:00 - 8:30		5:00 - 5:30	0.50	DRLIN1	02	D	Р		1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 40, MOTOR RPM = 145, PRESS ON - OFF BTM = 522-512 PSI , TORQ ON/OFF BTM =8-3K, MUD WT = 8.6, VIS = 35,
1800 ŠCFM, ĞPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 40, MOTOR RPM = 145, PRESS ON - OFF BTM = 537-523 PSI , TORQ ON/OFF BTM = 6-3K, MUD WT = 8.6, VIS = 35, Footage = 15', FPH = 10  8:30 - 11:00		5:30 - 7:00	1.50	DRLIN1	02	D	Р		SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 0, MOTOR RPM = 145, PRESS ON - OFF BTM = 537-523 PSI, TORQ ON/OFF BTM =0K, MUD WT = 8.6, VIS = 35, Footage = 36',
8:30 - 11:00		7:00 - 8:30	1.50	DRLIN1	02	D	Р		1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 40, MOTOR RPM = 145, PRESS ON - OFF BTM = 537-523 PSI , TORQ ON/OFF BTM = 6-3K, MUD WT = 8.6, VIS = 35,
11:00 - 15:30		8:30 - 11:00	2.50	DRLIN1	02	D	Р		Drilling sliding 4311' - 4325', WOB 25-50K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 0, MOTOR RPM = 145, PRESS ON - OFF BTM = 537-523 PSI , TORQ ON/OFF BTM = 0K, MUD WT = 8.6, VIS = 35,
15:30 - 16:00		11:00 - 15:30	4.50	DRLIN1	02	D	P		Drilling rotating 4325' - 4362', WOB 25-30K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 27, MOTOR RPM = 145, PRESS ON - OFF BTM = 582-523 PSI, TORQ ON/OFF BTM = 6-3K, MUD WT = 8.6, VIS = 35, Footage = 37', FPH = 8.22, Run 3 directional surveys, Ream 4285' - 4340' before and after survey. Tried to pull up to 4323', tight pulled up to 190k, 35k over pickup weight. String weight Pickup
		15:30 - 16:00	0.50	DRLIN1	03	В	S		Ream and back ream 4270' - 4362' to help control
		16:00 - 16:30	0.50	DRLIN1	06	Α	Р		

11/3/2008 10:03:25AM

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 Spud Date: 8/14/2008 End Date:

Event: DRILL	NG		Start Da	te: 7/30	/2008	End Da	ate:	Spud Date: 8/14/2008
Active Datum: Level)			n Sea	UWI: (	)/13/S/10	/E/20/0/I	NENE/6/PM/N/	1,142.00/E/0/0/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
	16:30 - 0:00	7.50	DRLIN1	02	D	Р		Drilling rotating 4362' - 4457', WOB 25-30K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 27, MOTOR RPM = 145, PRESS ON - OFF BTM = 582-523 PSI, TORQ OWOFF BTM = 6-3K, MUD WT = 8.6, VIS = 35, Footage = 141', FPH = 18.8
9/9/2008	0:00 - 3:30	3.50	DRLIN1	02	D	Р		Drilling rotating 4457' - 4503', WOB 25-30K, AIR = 1800 SCFM, GPM = 246, PUMP #1 = 0 SPM, PUMP #2 = 57 SPM, RPM = 27, MOTOR RPM = 145, PRESS ON - OFF BTM = 582-523 PSI, TORQ ON/OFF BTM = 6-3K, MUD WT = 8.6, VIS = 35, Footage =141', FPH = 18.8
	3:30 - 5:00	1.50	DRLIN1	04	С	Р		Circulate and condition hole
	5:00 - 5:30	0.50	DRLIN1	05	Ε	Р		TOOH, tight at 4396'
	5:30 - 11:00	5.50	DRLIN1	05	Е	Р		Work tight hole at 4349', 4331', 4321', 4256', 4246', 4239' and 4172'. Work through tight spot while establishing circulation w/ air and mud. Returns were heavy w/ coal chunks 1/8" size and shale chunks up 1 1/2" x 1" size
	11:00 - 11:30	0.50	DRLIN1		_	S		Line up and check air jet line and verify suction. Pull rotating head
	11:30 - 12:00	0.50	DRLIN1	06	Α	P	•	Rig service. Change hydraulic hose on ST-80
	12:00 - 13:00	1.00	DRLIN1	05	Α	P		ТООН
	13:00 ~ 15:30	2.50	DRLIN1	05	Α	Р		Break bit, L/D directional tools
	15:30 - 18:00 18:00 - 20:30	2.50	DRLIN1	05	F	P P		Makeup BHA as follows: Bit, bit sub, 1 - 6 1/2 DC, stabilizer, 2 - 6 1/2" DC and push pipe
	20:30 - 0:00	2.50 3.50	DRLIN1 DRLIN1	06 05	D F	P		Cut Drilling Line
		3.50	DKLIN	05	Г	r		TIH (SLM), Install rotating head, tagged bridge at 4065'. Air hands is having trouble getting booster running
9/10/2008	0:00 - 20:30	20.50	DRLIN1	12	E	Р		W.O./ AIR BOOSTER & INSTALL NEW BOOSTER
	20:30 - 21:30	1.00	DRLIN1	07	Α	X		REPLACE HYDRALIC HOSE ON IRON ROUGHNECK BROKE ON FIRST STD
	21:30 - 0:00	2.50	DRLIN1	05	F	P		TRIP IN HOLE TO REAM ALL TIGHT SPOTS INSTALL ROTATING HEADTAG @ 4058
9/11/2008	0:00 - 12:00	12.00	DRLIN1	03	А	Р		REAMING F/4058 T/4503 WITH 1600 TO 1750 CFM, 20 SPM 336 - 359 GPM, 25 -50 RPM TORQUE 3-10K, WOB 5 -20K, TIGHT @ 4089, 4105, 4129, 4203, 4251
	12:00 - 12:30	0.50	DRLIN1	04	G	Р		CIRC AND PUMP HIGH VIS SWEEP.
	12:30 - 14:00	1.50	DRLIN1	05	E	P		WIPER TRIP AND BACK REAM 4328, 4279, 4267 AND 4259
	14:00 - 17:00	3.00	DRLIN1		Α	Р		REAMING F/4058 T/4503 WITH 1600 TO 1750 CFM, 20 SPM 336 - 359 GPM, 25 -50 RPM TORQUE 3-10K, WOB 5 -20K, TIGHT @ 4089, 4105, 4129, 4203, 4251
	17:00 - 19:30	2.50	DRLIN1	05	E			WIPER TRIP & BACK REAM F/4503 T/ 4058
	19:30 - 22:30 22:30 - 0:00	3.00	DRLIN1	03	A			REAMING F/4058 T/4503 WITH 1600 TO 1750 CFM, 20 SPM 336 - 359 GPM, 25 -50 RPM TORQUE 3-10K, WOB 5 -20K, TIGHT @ 4089, 4105, 4129, 4203, 4251
0/40/0000		1.50	DRLIN1	05	E	<u> </u>		WIPER TRIP & BACK REAM F/4503 T/ 4058
9/12/2008	0:00 - 0:30	0.50	DRLIN1	05	E	Р		4 STD WIPER TRIP F/ 4503 T/ 4058
	0:30 - 1:00	0.50	DRLIN1	04	С			CIRC. & COND. HOLE FOR 7" CSG
	1:00 - 10:00	9.00	DRLIN1	05	D			PULL 10 STD & LAY DOWN DP TO RUN 7" CSG PULL WEAR BUSHING, CHANGE BAILS AND ELEVATORS.

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLI	· · · · · · · · · · · · · · · · · · ·		Start Da	ate: //30	/2008	End D	ate:	Spud Date: 8/14/2008
Active Datum: Level)	RKB @6,423.00ft	(above Mea	n Sea			/E/20/0/	NENE/6/PM/N/	/1,142.00/E/0/0/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
	10:00 - 12:00	2.00	DRLIN1	11	Α	Р	· · · · · · · · · · · · · · · · · · ·	HELD SAFETY MTG WITH CASING CREWS AND RIGGED CASING EQUIPMENT.
	12:00 - 0:00	12.00	DRLIN1	11	В	Р		RUN 7" 23# J-55 LTC, WORKING CSG. THROUGH TIGHT HOLE @ 4058 TO 4170
9/13/2008	-		DRLIN1	13	С	Р		
	0:00 - 3:30	3.50	DRLIN1	11	В	Р		RUN 7" 23# J 55 LTC , WORKING TIGHT HOLE F/4170 T/ 4490.
	3:30 - 7:00	3.50	DRLIN1	04	Α	Р		CIRC HOLE TO CEMENT, RIG DOWN WEATHERFORD CASERS, HELD SAFETY MEETING W/SUPERIOR CEMENTERS & RIG UP CEMENTERS
	7:00 - 9:30	2.50	DRLIN1	15	A	P		CEMENT (FIRST STAGE) WITH 10 BBLS WATER, 30 BBLS REACTIVE SPACER, 10 BBLS WATER, 430 SKS CEMENT, DROP PLUG @ 08:30, DISPLACE W/120 BBLS PUMP LOST PRIME ON THE DISPL AND SWITCHED TO MUD IN THAT TIME THE CMT SET UP.STILL HAD 55 BBLS OF DISPL TO PUMP = 1399' OF CMT IN PIPE. DO HAVE 37 BBLS OF CMT ON THE OUTSIDE = 1380' DROPPED DV OPENING TOOL @ 09:05, LANDED 7" CSG ON HANGER @ 09:20
	9:30 - 12:30	3.00	DRLIN1	04	Α	Р		CIRC. THROUGH DV TOOL 700 CFM 108 GPM, 20 SPM 90 GPM TOTAL 197 GPM
	12:30 - 15:00	2.50	DRLIN1	15	A	P		SAFETY MEETING W/SUPERIOR CEMENTERS, CEMENT (SECOND STAGE) W/10 BBLS WATER, 30 BBLS REACTIVE SPACER, 10 BBLS WATER, 550 SK CEMENT, DROPPED PLUG @ 14:10, DISPLACED W/84 BBLS WATER, BUMPED PLUG @ 3500 PSI FLOAT HELD DV TOOL CLOSED, NO CEMENT TO SURFACE
	15:00 - 16:00	1.00	DRLIN1	15	Α	Р		WASH & FLUSH STACK & FLOWLINE, RIG DOWN CEMENTERS.
•	16:00 - 18:00	2.00	DRLIN1	13	A	Р		REMOVE CIRC. SWEDGE, L/D LANDING JT., RIG UP FMC, SET PACK OFF TOOL, TEST 7" CSG @ WELLHEAD T/3000 PSI FOR 15 MINS, L/D PACK OFF TOOL & TEST JT. L/D 4.5 DP OUT OF DERRICK.
	18:00 - 18:30	0.50	DRLIN1	06	Α	Р		RIG SERVICE
	18:30 - 20:00	1.50	DRLIN1	07	Α	Х		REPAIR HYDRAULIC HOSE ON IRON ROUGHNECK
	20:00 - 0:00	4.00	DRLIN1	13	Α	Р		L/D DP, CHANGE OUT BAILS & ELEVATORS, CHANGE OUT 7" RAMS TO 2 7/8" RAMS, CHANGE OUT 5" RAMS TO 5 1/2" RAMS
9/14/2008	0:00 - 2:00	2.00	DRLIN1	13	С	P		CHANGING 7" RAMS TO 2 7/8" RAMS & 5" RAMS TO TO 5 1/2" RAMS
	2:00 - 8:00	6.00	DRLIN1	12	F	X		WAIT ON BOP HAND FOR RENTAL BOPS, SLIDE PLATE ON RAM CRACKED & BENT, UNABLE TO CHANGE RAMS.
	8:00 - 9:30	1.50	DRLIN1	13	D	X		PULLED CYLINDER FROM BOPE AND INSPECT AND FOUND CRACK AND IT WAS BENT. CAN NOT FIND ANOTHER CYLINDER.
	9:30 - 12:30	3.00	DRLIN1	12	F	X		WAIT ON WELDER TO COME AND REPAIR RAM CYLINDER.
	12:30 - 14:30	2.00	DRLIN1	13	D	X		WELD AND REPAIR RAM CYLINDER AND LET COOL.
	14:30 - 19:00	4.50	DRLIN1	13	С	Р		PRESSURE TEST BOPs 2 7/8 RAM, 4 1/2, BLIND RAMS, BOP VALVES, CHOKE MANIFOLD TO 3000# HIGH, 250# LOW. ANNULAR TO 1900# HIGH, 250# LOW

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

vent: DRILLII			Start Da	te: 7/30	/2008	End Da	ate:	Spud Date: 8/14/2008
ctive Datum: evel)	RKB @6,423.00ft	(above Mea	in Sea	UWI: 0	)/13/S/10	/E/20/0/I	NENE/6/PM/N/	1,142.00/E/0/0/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
·	19:00 - 22:00	3.00	DRLIN1	05	A	P	(10)	STRAPING BHA, RIG UP PICK UP MACHINE,
	22.00	0.00	DICENT	00	, ,	•		ATTEMPT TO PICK UP BHA, WRONG ELEVATORS, COULDN'T LATCH ELEVATORS
	22:00 - 0:00	2.00	DRLIN1	12	E	Х		•
	22.00 - 0.00	2.00	DKLINT	12	<b>C</b>	^		WAIT ON ELEVATORS, FOR PICKING UP BHA THE ELEVATORS WAS 3 1/4 AND COLLARS ARI 3 1/8"
9/15/2008	0:00 - 2:30	2.50	DRLIN1	12	Ε	Х		WAIT ON ELEVATORS FOR BHA
	2:30 - 8:30	6.00	DRLIN1	05	Α	Р		PICKING UP BHA & DP TAG CEMENT @ 2136 RIG DOWN LAYDOWN MACHINE
	8:30 - 9:00	0.50	DRLIN1	04	Α	P		CIRC. & COND. HOLE
	9:00 - 11:00	2.00	DRLIN1	02	F	Р		DRLG CEMENT & DV TOOL F/2136 T/2156
	11:00 - 12:00	1.00	DRLIN1	05	Α	Р		TIH F/2177 T/2406' TAG CEMENT STRINGER
	12:00 - 16:30	4.50	DRLIN1	03	E	Р		WASH & REAM F/2406 T/2412 TIH 2412-2430 WASH AND REAM F/2430-2453
	16:30 - 18:00	1.50	DRLIN1	05	G	Χ		L/D STAND IN MOUSE HOLE TIGHTEN TOP
								CONN THAT WAS LEAKING. TRIPPED OUT 7 STDS AND CHECKED EVERY CONN AND
								RETIGHTEN CONNECTIONS AND TRIP BACK IN
	18:00 - 19:30	1.50	DRLIN1	02	F	Р		DRLG F/2453 T/ 2454 WOB 2-5K, RPM 60, MP #2 33 SPM. 148 GPM. 965 TO 1008. TORQUE
								ON/OFF 3/12K
	19:30 - 23:00	3.50	DRLIN1	05	Н	X		POOH, LOST WEIGHT & PUMP PRESSURE, (HAD BACKED OFF 8 DC DOWN)
	23:00 - 0:00	1.00	DRLIN1	05	Н	Р		TIH TO TRY & SCREW INTO FISH @ 998
9/16/2008	0:00 - 2:00	2.00	DRLIN1	05	Н	Р		TIH TO SCREW INTO FISH @ 998
	2:00 - 9:00	7.00	DRLIN1	05	Н	Р		SCREWED INTO FISH TOH BREAK EVERY DC & CHECK THE TREADS DOPE & RE-TORQUE
	9:00 - 12:00	3.00	DRLIN1	05	G	Р		L/D BAD COLLARS RE-RACK PIPE IN DERRICK
	12:00 - 12:30	0.50	DRLIN1	06	Α	P		LUBRICATE RIG
	12:30 - 16:00	3.50	DRLIN1	11	Α	Р		PREPARED 5 1/2 CSG
	16:00 - 18:00	2.00	DRLIN1	05	Н	Р		LOADING OUT ROLLER REAMERS, CLEANING UP LOCATION
	18:00 - 20:30	2.50	DRLIN1	12	E	Р		WAITING ON 4 3/4 DC & 3 1/2 DP. MOVING 2 7/8 DP TO LOCATION
	20:30 - 0:00	3.50	DRLIN1	12	E	Р		UNLOAD MUD MTRS, DC & DP STRAP & CALIPER
9/17/2008	0:00 - 0:30	0.50	DRLIN1	05	Α	Р		CHANGE OUT ELEVATORS, GET RENTAL EQUIPMENT ON FLOOR
	0:30 - 10:30	10.00	DRLIN1	05	Α	Р		PICK UP MUD MTR, 4 3/4 DC, 3 1/2 DP TO 2452
	10:30 - 13:00	2.50	DRLIN1	02	F	Р		DRLG CEMENT F/2452 TO 2470, WOB 15/17, #2 SPM 55, GPM 248
	13:00 - 14:30	1.50	DRLIN1	05	Α	Р		PICK UP PIPE TO 3104
	14:30 - 17:30	3.00	DRLIN1	02	F	Р		DRLG CEMENT F/3104 T/3476, WOB 15/17, #2 SPM 55,GPM 248
	17:30 - 18:00	0.50	DRLIN1	06	Α	Р		LUBRICATE RIG
	18:00 - 0:00	6.00	DRLIN1	02	F			DRLG CEMENT F/3476 T/3923 WOB 15/17, #2 PUMP SPM 55, GPM 248.
9/18/2008	0:00 - 8:00	8.00	DRLIN1	02	F	Р		DRLG F/3923 T/ , WOB 16, #2 PUMP SPM 55, GPM 248. SPP 1340, RPM TD 50, RPM MM 138 TOTAL RPM 188. ROP 80 TO105 ROP
	8:00 - 10:00	2.00	DRLIN1	11	С	Р		ATTEMPT TO PRESSURE TEST CSG TO 1500 PSI. PRESSURED UP TO 500 PSI & BLED OFF WHEN KICKED OUT
	10:00 - 13:00	3.00	DRLIN1	05	K	Р		TOH FOR TEST PLUG LOST ONE CONE ON BIT IT HAS BEEN GONE FOR AWHILE.
	13:00 - 13:30	0.50	DRLIN1	06	Α	Р		LUBRICATE RIG

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLI	NG		Start Da	ite: 7/30/2008	8 End	Date:	Spud Date: 8/14/2008
Active Datum: Level)	RKB @6,423.00ft	n Sea	UWI: 0/13/	S/10/E/20/0	0/NENE/6/PM/N/	1,142.00/E/0/0/0/0	
Date	Time Start-End	Duration (hr)	Phase	Code Sub		MD From (ft)	Operation
	13:30 - 18:00 18:00 - 20:00	4.50 2.00	DRLIN1 DRLIN1	05 K 05 I			TIH WITH TEST PLUG, TESTING EVERY 5 STDS, LAST TEST @ 2106 PRESSURE HELD. TOH TEST PLUG WOULDN'T GO THROUGH DV
	20:00 - 23:00	3.00	DRLIN1	08 B	Р		TOOL. RIG UP WIRELINE TRUCK & RUN BOND LOG W/PHOENIX SURVEYS
	23:00 - 0:00	1.00	DRLIN1	12 E	Р		WAITING FOR STRING MILLS W/GRACO
9/19/2008	0:00 - 5:30	5.50	DRLIN1	05 I	Р		TIH WITH 6 1/8 SRING MILL TO REAM TIGHT SPOTS @ DV TOOL @ 2154 & CSG, @ 2275,2458
	5:30 - 7:00	1.50	DRLIN1	05 K	Р		TOH FOR TEST PLUG
	7:00 - 12:30	5.50	DRLIN1	05 A	Р		MAKE UP CUP PACKER, TIH TO DV TOOL @ 2150, COULDN'T GET PAST 2183, TESTED THERE TO 1000 PSI
	12:30 - 14:00	1.50	DRLIN1	05 A	Р		TOH FOR STRING MILL
	14:00 - 14:30	0.50	DRLIN1	06 A			LUBRICATE RIG
	14:30 - 18:30	4.00	DRLIN1	07 A	Z		DRAWORKS #2 MODULE IN THE VFD IS DOWN
	18:30 - 20:30	2.00	DRLIN1	05 A			TOH TO LAY DOWWN CUP PACKER, PICK UP BIT & STRING MILL
	20:30 - 0:00	3.50	DRLIN1	07 A	Р		REPLACE #2 MODULE IN THE VFD, DYNAMIC BRAKE ISN'T WORKING RIGHT IT WILL COAST UP AS WELL AS DOWN 4 TO 5 FT. WITH NO WEIGHT, TROUBLE SHOOTING SYSTEM.
9/20/2008	0:00 - 11:30	11.50	DRLIN1	07 A	Z		#2 MODULE IN THE VFD WAS REPLACED BUT THE DYNAMIC BRAKE ISN'T WORKING PROPERLY. TROUBLE SHOOTING SYSTEM, TOP DRIVE CONTINUES TO MOVE AFTER SHUT DOWN MAKING IT UNSAFE. WAIT ON OMRON TECH.
	11:30 - 17:00	5.50	DRLIN1	05 B	Р		PICK UP HALCO RTTS TOOL, TIH TO 2440 TEST UP GOOD, 2480 TEST UP BAD, 2480 TEST DOWN GOOD, TEST @ 2445 GOOD, TEST @ 2449 BAD, HOLE IS BETWEEN 2445 & 2449.
	17:00 - 18:00	1.00	DRLIN1	05 K			TOH TO LAY DOWN HALCO RTTS TOOL
	18:00 - 19:30	1.50	DRLIN1	05 C			TIH TO 2388 OPEN ENDED TO SET CEMENT PLUG.
	19:30 - 21:00	1.50	DRLIN1	06 D			SLIP & CUT DRLG LINE RECALIBRATE BLOCKS
	21:00 - 0:00	3.00	DRLIN1	12 F	•		CIRC. HOLE OUT WHILE WAITING FOR CEMENTERS
9/21/2008	0:00 - 5:30	5.50	DRLIN1	12 F			WAIT ON CEMENTERS TO SET CEMENT PLUG
	5:30 - 7:30 7:30 - 8:00	2.00	DRLIN1	15 B			HELD SAFETY MTG. RIG UP CEMENTERS TO SET 100 SK CEMENT PLUG PUMPED 100 SKS OF CLASS G 15.8# 21 BBLS
	8:00 - 13:00	0.50 5.00	DRLIN1 DRLIN1	15 B 12 B			DISPLACE 17.7 BBLS OF WATER PULLED 2 STDS. TO 2156 CIRC HOLE CLEAN.
							AFTER 3 HRS. RAN BACK TO 2388 TAGGED SOFT CMT. PICKED UP CIRC PIPE CLEAN AND WAITED UNTIL 13:00 AND TAGGED GOOD CMT AT 2403' SET 20K ON IT AND HELD.
	13:00 - 14:00	1.00	DRLIN1	05 C			TRIP OUT OF HOLE.
	14:00 - 14:30	0.50	DRLIN1	15 B			RIG DOWN CMT EQUIPMENT.
	14:30 - 15:00	0.50	DRLIN1	06 A			RIG SERVICE
	15:00 - 16:30	1.50	DRLIN1	05	P		PICK UP MUD MOTOR AND BIT AND TRIP IN TO 2388'
	16:30 - 20:00	3.50	DRLIN1	12 B	P		WAIT ON CMT.

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

Event: DRILLI	ING		Start Da	te: 7/30	/2008	End D	ate:	Spud Date: 8/14/2008
Active Datum: Level)	RKB @6,423.00ft	(above Mea	n Sea	UWI: 0	)/13/S/10	)/E/20/0/	NENE/6/PM/N/1	,142.00/E/0/0/00
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
	20:00 - 21:00	1.00	DRLIN1	02	F	Р		TAG CEMENT STRINGER @ 2407 & 2459, DRILLED STRINGES OUT, CIRC. OUT CEMENT ATTEMPT TO PRESSURE TEST. PRESSURED UP TO 975 PSI AT A GRADUAL INCREASE BUT PLUG BROKE DOWN. PRESSURE THEN DECREASED RAPIDLY.
	21:00 - 23:00	2.00	DRLIN1	05	Α	Р		TOH WITH BIT & COLLARS & STAND BACK
	23:00 - 0:00	1.00	DRLIN1	05	Α	P		TIH OPEN ENDED WITH CEMENT STRING.25 STDS DP TO 2388
9/22/2008	0:00 - 16:00	16.00	DRLIN1	12	E	Р		WAITING ON CEMENT EQUIPMENT, UNABLE TO LOCATE CEMENT PUMP TRUCK, ALL CEMENTING COMPANYS ARE BUSY
	16:00 - 17:00	1.00	DRLIN1	15	В	Р		RIG UP CEMENTERS, HELD SAFETY MEETING
	17:00 - 17:30	0.50	DRLIN1	80	В	Р		CHECK INJECTION RATE, CSG PRESSURED UTO 800 PSI HELD FOR 20 MIN LOST 8 PSI
	17:30 - 18:30	1.00	DRLIN1	05	Α	P		TOH TO PICK UP BIT & BHA
	18:30 - 22:00	3.50	DRLIN1	05	Α	Р		TRIP IN HOLE WITH BIT & BHA
	22:00 - 0:00	2.00	DRLIN1	02	F	Р		DRILL CEMENT, FLOAT, CEMENT. WOB 15K, RPM 60, SPM 50, SPP 755, GPM 225
9/23/2008	0:00 - 6:00	6.00	DRLIN1	02	F	Р		DRLG CEMENT & SHOE
	6:00 - 7:00	1.00	DRLIN1	11	Α	Р		RIG UP LAY DOWN MACHINE
	7:00 - 12:00	5.00	DRLIN1	05	D	P		L/D 3 1/2 DRILL PIPE AND BHA.
	12:00 - 14:30	2.50	DRLIN1	11	A	X		HELD SAFETY MTG WITH CASING CREWS AN RIG UP. (DID NOT BRING BACK UP TONGS AN COLLAR CLAMP SAID THEY HAD THEM AND IT WAS NOT ON TRUCK) RIG DOWN AND RELEASED CSG. EQUIPMENT. BERNARD CASING SERVICE.
	14:30 - 17:00	2.50	DRLIN1	12	Ε	X		WAITING ON CASING CREWS AND EQUIPMENT.
	17:00 - 17:30	0.50	DRLIN1	06	Α	P		RIG SERVICE.
•	17:30 - 18:00	0.50	DRLIN1	12	Е	Р		WAITING ON CASING CREWS AND EQUIPMENT.
	18:00 - 19:30	1.50	DRLIN1	11	A	P		HELD SAFETY MTG. AND RIG UP CASING EQUIPMENT.
	19:30 - 0:00	4.50	DRLIN1	11	В	Р		RUN 5 1/2", 17# J-55 ULTRA-FLUSH JOINTS LEFT HAND THREAD. STARTED TO GET HOLE DRAG AT 2426' AND IT WAS THAT WAY FOR 5 JTS. DRAGGED ABOUT 20-25K DOWN.
9/24/2008	0:00 - 1:30	1.50	DRLIN1	11	В	Р		RUN 104 JTS. 5.5 17# J 55 ULTRA FLUSH CSG.TO 4481
	1:30 - 2:00	0.50	DRLIN1	11	Α	Р		RIG DOWN CASERS
	2:00 - 5:30	3.50	DRLPRO	18	Α	Р		PICK UP STACK, SET SLIPS W/70K, CUT OFF CSG
	5:30 - 11:00	5.50	DRLPRO	13	A	P		NIPPLE UP STACK
	11:00 - 11:30	0.50	DRLPRO	13	С	P		Pickup and make up testing tools
	11:30 - 12:30	1.00	DRLPRO	13	С	Р		Pressure test BOPE to 250 low 5 minutes, 3000 high 10 minutes. Wittnessed by Walton Wilis w/ BLM
	12:30 - 13:00	0.50	DRLPRO	06	Α	Р		Rig Service
	13:00 - 16:30	3.50	DRLPRO	05	Α	Ρ		Make up directional tools
	16:30 - 17:00	0.50	DRLPRO	05	Α	Р		Rig up Weatherfords pickup machine
	17:00 - 20:30	3.50	DRLPRO	05	Α	P		Pickup 2 7/8" drill pipe. Using Weatherford hydraulic tongs for make, torque 4600
	20:30 - 21:00	0.50	DRLPRO	05	Α	Р		Rig down Weatherfords pickup machine
	21:00 - 23:00	2.00	DRLPRO	05	Α	Р		TIH and strap drill string in derrick

11/3/2008 10:03:25AM

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Active Datum: Level)	RKB @6,423.00ft	n Sea	UWI: 0	UWI: 0/13/S/10/E/20/0/NENE/6/PM/N/1,142.00/E/0/0/0/0								
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation				
	23:00 - 23:30	0.50	DRLPRO	05	Α	S		Check drill pipe count, making sure drill string is correct				
	23:30 - 0:00	0.50	DRLPRO	05	Α	Р		Install rotating head				
9/25/2008	0:00 - 2:00	2.00	DRLPRO	04	Α	Р		Attempt to displace casing w/ air				
	2:00 - 6:00	4.00	DRLPRO	02	D	Р		DRILL FROM 4503' TO 4532' - Actual depth was 4472' - 4501'				
	6:00 - 11:00	5.00	DRLPRO	05	Α	Р		TRIP OUT OF HOLE				
	11:00 - 12:00	1.00	DRLPRO	12	Α	Р		WAITING ON ORDERS				
	12:00 - 13:00	1.00	DRLPRO	05	Α	P		LAYING DOWN DIRECTIONAL TOOLS				
	13:00 - 13:30	0.50	DRLPRO	06	Α	Р		LUBRICATE RIG				
	13:30 - 15:30	2.00	DRLPRO	12	E	Р		WAITING ON NEW BIT				
	15:30 - 17:30	2.00	DRLPRO	05	Α	Р		MAKE UP BIT & TRIP IN HOLE TO 2000'				
	17:30 - 18:00	0.50	DRLPRO	04	Н	Р		UNLOADED HOLE WITH 800 CFM AT 2000'				
	18:00 - 21:00	3.00	DRLPRO	05	Α	Р		TRIPPING IN HOLE TO 4998'				
	21:00 - 0:00	3.00	DRLPRO	04	Н	Р		UNLOADING HOLE W/ 1000 SCFM AIR				
9/26/2008	0:00 - 0:30	0.50	DRLPRO	04	Н	P		Unload hole w/ air down drill pipe and blow dry. Establish air injection down parasite string				
	0:30 - 3:30	3.00	DRLPRO	02	D	Р		Work past junk at 4498' several time and drill 4503' - 4517'. Pickup above 4498' and could not make it back to bottom				
	3:30 - 9:00	5.50	DRLPRO	05	Α	Х		TOOH to check bit and pickup mill and junk sub				
	9:00 - 9:30	0.50	DRLPRO	06	Α	Р		Rig Service				
	9:30 - 11:00	1.50	DRLPRO	05	Α	X		HSM about picking up fishing tools and pickup milling BHA				
	11:00 - 15:30	4.50	DRLPRO	05	Α	X		TIH w/ milling BHA. Unload hole at 3000'. TIH, tagged at 4495'				
	15:30 - 16:00	0.50	DRLPRO	04	Н	X		Unload hole w/ mill at 4493' and air going down drill pipe				
	16:00 - 16:30	0.50	DRLPRO	04	Н	X		Establish circulation w/ air going down parasite string and fluid going down drill pipe				
	16:30 - 0:00	7.50	DRLPRO	16	Α	Χ		Mill on junk 4490' - 4503'				
9/27/2008	0:00 - 3:00	3.00	DRLPRO	05	Α	X		TOOH slow, change elevators as needed. Visualy inspect connection, found 2 connection w/ 1/2" gap, tighten. Had trouble breaking tool joints due to over torque. From 4481' to 3500' had 6k drag				
	3:00 - 3:30	0.50	DRLPRO	05	Α	Χ		Pull rotating head				
	3:30 - 4:00	0.50	DRLPRO	05	Α	Χ		TOOH				
	4:00 - 6:00	2.00	DRLPRO	05	Α	Х		Break mill and junk basket and empty. Found flat steal shavings, m/u new mill & basket & T.I.H.				
	6:00 - 12:00	6.00	DRLPRO	05	Α	X		TIH, installed rotating head, unloaded hole 3040' & 4480' W/ 1000 SCFM air				
	12:00 - 13:00	1.00	DRLPRO	04	H	X		Establish circulation w/ air going down parasite string and fluid going down drill pipe				
	13:00 - 15:30	2.50	DRLPRO	16	A	X		Mill on junk, tag @ 4495' work down to 4516'				
	15:30 - 18:00	2.50	DRLPRO	16	В	Х		Work Stuck Pipe				
	18:00 - 0:00	6.00	DRLPRO	16	В	X		Work Stuck Pipe @ 4516' trying various things to free up pipe				
9/28/2008	0:00 - 5:00	5.00	DRLPRO	12	F -	Х		Wait on backoff wireline unit and fishing tools				
	5:00 - 9:30	4.50	DRLPRO	16	В	X		HSM w/ DCT Wireline crew and rig up to free point and back off. Had to change rope scokett for 1" tools.				
	9:30 - 11:00	1.50	DRLPRO	16	В	Χ		RIH w/ 1" free point tools, had to pump 5 - 25 SPM to help get tools to bottom				
	11:00 - 12:00	1.00	DRLPRO	16	В	Х		Laid down free point tools and pickup back off tools				

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

1 10,000. 0 174			0.1.0.					Mig Name No. Har 230/230
Event: DRILL	vent: DRILLING		Start Da	te: 7/30	/2008	End D	ate:	Spud Date: 8/14/2008
Active Datum: ₋evel)			n Sea	UWI: (	0/13/S/10	/E/20/0/	NENE/6/PM/N/	,142.00/E/0/0/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
	12:00 - 14:00	2.00	DRLPRO	16	В	Х		Pull backoff tools and rig down DCT Wireline. Install mouse hole and prep to TOOH
	14:00 - 14:30	0.50	DRLPRO	16	В	X		RIH w/ back off tools and back off at 4442'. Fish left in hole: Mill, junk basket, bit sub, xo sub, xo sub, 2 joints DP. Total length 74.45'. Top of fish at 4442'
	14:30 - 15:00	0.50	DRLPRO	12	E	Χ		Wait on Weatherford to get engine for power tongs running
	15:00 - 17:30	2.50	DRLPRO	16	Α	Х		TOOH to pickup fishing tools
	17:30 - 18:00	0.50	DRLPRO	06	Α	Р		LUBRICATE RIG
	18:00 - 18:30	0.50	DRLPRO	06	Α	P		INSPECTED DERRICK
	18:30 - 19:00	0.50	DRLPRO	05	Α	Х		P/U & M/U OVERSHOT, BUMPER SUB, JAR AND T.I.H. TO TOP OF FISH 4442'
	19:00 - 20:30	1.50	DRLPRO	05	Α	Х		T.I.H.
	20:30 - 21:00	0.50	DRLPRO	05	Α	Х		INSTALL R/T HEAD
	21:00 - 0:00	3.00	DRLPRO	05	Α	X		T.I.H. CK. TQ.
9/29/2008	0:00 - 0:30	0.50	DRLPRO	05	Α	Х		TIH w/ overshot
	0:30 - 8:00	7.50	DRLPRO	16	A	X		Work overshot over fish and jar on fish start setting jars off at 140k and increasing to 155k
	8:00 - 12:00	4.00	DRLPRO	05	A	X		TOOH w/ fish, drag 4442' - 2966'
	12:00 - 14:00	2.00	DRLPRO	16	A	X		Recovered fish. Lay down fish
	14:00 - 15:30	1.50	DRLPRO	16	Α	Х		Pickup reverse circulating junk basket. Check float and cleaned out, it was full of metal cuttings, recovered 2 pounds of metal
	15:30 - 16:00	0.50	DRLPRO	06	Α	Р		Rig Service
	16:00 - 16:30	0.50	DRLPRO	06	Α	Х		Inspect derrck and top drive after jarring. Found bent hydraulic fitting to IBOP, changed out
	16:30 - 20:00	3.50	DRLPRO	05	Α	Х		TIH w/ reverse circulating junk basket. Change elevator as needed to straighten drill pipe and drill collar up
	20:00 - 20:30	0.50	DRLPRO	05	Α	Х		Install rotating head
	20:30 - 22:00	1.50	DRLPRO	16	Α	Х		Make up top drive and break circulation w/ 20 spm at 4497'. Setting down on some junk, tried to work past junk, not successful
	22:00 - 23:30	1.50	DRLPRO	05	A	X		TOOH 50 DC. change elevators over to drill pipe
	23:30 - 0:00	0.50	DRLPRO	05	Α	Х		Pull rotating head
9/30/2008	0:00 - 0:30	0.50	DRLPRO	05	A	Х		Pull rotating head
	0:30 - 1:30	1.00	DRLPRO	05	Α	X		TOOH, lay down reverse circulation junk basket.  Make up mill, watermelon mill and junk basket.  Clean floor
	1:30 - 2:00	0.50	DRLPRO	12	Е	Х		Work on Weatherford's hydraulic power tongs, had to change out
	2:00 - 3:30	1.50	DRLPRO	05	Α	X		TIH, SLM
	3:30 - 4:00	0.50	DRLPRO	05	Α	X		Install rotating head
	4:00 - 5:30	1.50	DRLPRO	05	Α	Х		Change elevators to DC's and continue to TIH, SLM
	5:30 - 6:00	0.50	DRLPRO	04	A	X		Establish circulation
	6:00 - 13:00	7.00	DRLPRO	16	Α	Х		Mill 4495'-4497' WOB 2-8K, RPM 65-75, SPM 36-42, GPM 116-135, Torq 1-3K. Hard milling 4508 - 4510'
	13:00 - 14:00	1.00	DRLPRO	12	E	Χ		Work on Weatherford's hydraulic power tongs
	14:00 - 19:30	5.50	DRLPRO	05	Α	Χ		TOOH, break mill & junk basket and inspect. Visually inspect connection, found 1 connection tha had about 1/2" gap.
	19:30 - 0:00	4.50	DRLPRO	05	Α	Х		Make up new mill, trip in hole, retorque every connection, connections were at recommended torque.

# **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

vent: DRILLI	Start Dat			End D	***	Spud Date: 8/14/2008		
ctive Datum: evel)	an Sea	UWI: (	UWI: 0/13/S/10/I		NENE/6/PM/N	/1,142.00/E/0/0/0/0		
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
10/1/2008	0:00 - 0:30	0.50	DRLPRO	05	A	X	\-\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Finish TIH, checking every connection's torque
	0:30 - 9:00	8.50	DRLPRO	16	Α	X		Mill on junk 4510' - 4515' WOB 3-11, RPM 75-85, Pump #1 42-48 SPM, 135-155 GPM, Pressure 1530-2025, Torq 1-3K. Worked hole 2 time from 4495' - 4515' and one time to 4513'. Pulled back to 4490 and worked down to 4500' could not get deeper.
	9:00 - 13:00	4.00	DRLPRO	05	Α	Х		TOOH, L/D Kelly XO sub. Visually check breaks. Break off mill and junk basket
	13:00 - 13:30	0.50	DRLPRO	06	Α	Р		Rig Service
	13:30 - 15:00	1.50	DRLPRO	07	Α	S		Power down PLC's. Power down rig to change breaker in VFD house
	15:00 - 17:00	2.00	DRLPRO	05	Α	X		Finish laying down milling tools and rig down Weatherford power tongs
	17:00 - 20:00	3.00	DRLPRO	13	Α	X		Prep to lay down 5 1/2" casing. Break BOP at wellhead. Rig down flow line - Pick up BOP
	20:00 - 22:00	2.00	DRLPRO	16	Α	Х		Make up spear & grappler - Spear into 5 1/2 casin - Pull up and remove casing slips - 115k to pull pip - Pull up to 1st casing connection - set slips & colla clamp
	22:00 - 0:00	2.00	DRLPRO	13	Α	Χ		Nipple up BOP & rig up flow line
10/2/2008	0:00 - 1:00	1.00	DRLPRO	13	Α	X		Nipple up BOP & flow line
	1:00 - 4:00	3.00	DRLPRO	11	Α	X		HSM and rig up Frank's Westates casing crew's power tongs, elevators, backup tongs, spot HPU and rig up hydraulic lines. Back out 1 joint of casing and set in mouse hole. Laid down joint of casing and fishing tools
	4:00 - 4:30	0.50	DRLPRO	05		Х		Re-arrange 18 stands of 2 7/8" drill pipe in derrick furnish adequate spacing for lay down machine trough
	4:30 - 6:00	1.50	DRLPRO	11	Α	Х		HSM w/ Frank's Westates crew and rig up casing crew and lay down machine, change bail and elevators
	6:00 - 7:30	1.50	DRLPRO	11	В	X		HSM w/ Frank's Westates casing crew and lay down 10 joints 5 1/2" casing
	7:30 - 12:00	4.50	DRLPRO	13	С	X		HSM w/ Single Jack, pickup test tools and 1 joint 4 1/2" DP. Make up test tools and run in hole, attem
								to test and could not get good seal. Open BOP door and found a piece of metal 3 1/4" Wide x 10" Long. Attempt to test again and did not get good seal, pull test plug out and checked XO sub OD, it was the OD was larger than the 7" casing ID. Lay down test plug. Contacted Walt Wills w/ BLM and received verbal approvel on laying down 5 1/2" casing w/o pressure testing BOP
	12:00 - 18:30	6.50	DRLPRO	11	В	Х		Lay down 5 1/2" casing, 30k drag until we were above 2400', no drag above 2400'. Rig down casing crew and change out elevator and bails. ESTIMATED 8.08 OF CASING
	18:30 - 20:30	2.00	DRLPRO	13	С	X		HSM w/ Single Jack, rig up tester, fill stack and te 2 7/8" ram door seal, 4 1/2" rams, seal between rams and "B" section of wellhead, inside kill, inside choke manifold valve and upper kelly valve to 250 psi for 5 minutes and 3000 psi for 1 minutes, all held. Rig down Single Jack Testers
	20:30 - 21:30	1.00	DRLPRO	16	Α	Х		Rig up Slaugh fishing milling and fishing tools. Pic up mill, & jars. Strap 3 1/2 drill pipe & pick up 3 1/ slips & elevators

### **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

vent: DRILLII	NG 		Start Dat	te: //30	/2008	End D	ate:	Spud Date: 8/14/2008		
ctive Datum:	<del>.,                                    </del>			UWI: 0	)/13/S/10	/E/20/0/I	NENE/6/PM/N/	/1,142.00/E/0/0/0/0		
Date	Time Start-End	Duration	Phase	Code	Subco de2	P/U	MD From	Operation		
	21:30 - 0:00	(hr) 2.50	DRLPRO	05	A	X	(ft)	HSM w/ Frank's Lay down crew. Pick up 3 1/2 drill pipe. Picked up 68 jts, 2154' in hole, tagged up around the DV tool. Started reaming through DV tool at 2154' at midnight		
10/3/2008	0:00 - 5:00	5.00	DRLPRO	16	Α	X		Pickup back up tongs, make up XO sub on top drive. Wash, ream and or mill 2159' - 2591'		
	5:00 - 9:00	4.00	DRLPRO	16	Α	Х		TIH from 2591' - 4259'		
	9:00 - 9:30	0.50	DRLPRO	16	Α	Х		Rig down pickup machine		
	9:30 - 11:30	2.00	DRLPRO	16	Α	Χ	•	Ream 4259' - 4502', pushing something down ahead of mill		
	11:30 - 13:00	1.50	DRLPRO	16	Α	X		Mill on junk 4502' - 4504'. Stalled out picked up dragging, pulled up to casing and stuck mill in 7" casing shoe		
	13:00 - 16:30	3.50	DRLPRO	16	Α	Х		Stuck at casing shoe. Jarring on mill trying to free up		
	16:30 - 0:00	7.50	DRLPRO	16	Α	X		Milling on 5 1/2" casing that was left in hole when 1/2 casing was pulled, working mill between 4489' 4504'. Approximately 8.08' long		
10/4/2008	0:00 - 2:00	2.00	DRLPRO	16	Α	Χ		Milling on 5 1/2" casing junk 4489' - 4503'. Return		
	2:00 - 7:30	5.50	DRLPRO	16	Α	x		were heavy w/ metal filing. Worked mill in to casin TOOH, in the process of milling on junk we backe off the skirt off junk sub and had two chunks of 5 1/2" casing wedged between skirt and junk sub		
								body. Junk sub was damaged so no extra iron warecovered. NOTE: LAID DOWN 2 JOINTS DRILL PIPE ONE HAD BIG RING GROOVES AROUND THE TUBE, THE OTHER ONE HAD SMALL RIG GROOVES AROUND TUBE. DEPTH IN HOLE WAS 4228' - 4291'		
	7:30 - 9:00	1.50	DRLPRO	16	Α	Х		Laid down fishing jars, strap, caliper and pickup drilling jars		
	9:00 - 9:30	0.50	DRLPRO	06	Α	X		Rig service and inspect coupler between drawwor and traction motor		
	9:30 - 15:00	5.50	DRLPRO	16	Α	Х		TIH w/ mill, bit sub, 1 joint drill pipe, drilling jars, tagged at 2495', 4275' and 4503'. Ream 4275' - 4503'		
	15:00 - 0:00	9.00	DRLPRO	16	Α	X		Milling on junk 4503' - WOB 1-5k, RPM 110, SPM 85, GPM 258, Max torque set at 7. Torque while milling = 3000-6000ft/lbs. @ 2330 hrs running 10k on mill & torque falling off to 2500-2800ft/lbs.		
10/5/2008	0:00 - 4:30	4.50	DRLPRO	16	Α	Х		Trip out w/ mill. Tight coming up through casing from 4300' to 3900'. Pulling 30-40k over normal drag wt. Mill was cut approx. 2" up beyond cut riglinto mill body to approx 5 1/4" od. Original mill od		
	4:30 - 5:00	0.50	DRLPRO	16	Α	Х		was 6 1/8"  Break out mill. Pick up new mill, junk basket, & bit		
	5:00 - 8:30	3.50	DRLPRO	16	Α	Х		sub Trip in hole w/ mill. Tagged something @ 2475' &		
	8:30 - 11:30	3.00	DRLPRO	16	Α	х		4512' Mill from 4512' to 4516'		
	11:30 - 14:00	2.50	DRLPRO	16	A	X		Trip out mll. Tight from 4261' to 3900'. Pulled 60k over @ 4261' and 30-40k over normal drag wt. Ha a little bobble coming through 2475'		
	14:00 - 15:00	1.00	DRLPRO	16	Α	Χ		Trip in hole w/ new mill. Tagged something @ 224		
	15:00 - 17:00	2.00	DRLPRO	16	Α	X		Ream down from 2245' to 2532'. Not making any more hole @ 2532'		
	17:00 - 18:30	1.50	DRLPRO	16	Α	X		Trip out to check mill. Break off mill. Mill wore on center & heel. Approx. 2 1/2" wear pattern dead center of mill. Visible 3/4" wear pattern in center of 1/2" wear pattern.		

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

evel) Date	Time	Duration	Phase	Code	Subco	P/U	MD From	Operation
	Start-End	(hr)	1 11000	0000	de2		(ft)	Operation
	18:30 - 19:00	0.50	DRLPRO	06	Α	Р		Lubricate rig
	19:00 - 20:30	1.50	DRLPRO	06	D	Р		Slip & cut 74' drilling line
	20:30 - 21:30	1.00	DRLPRO	16	Α	X		Clear off all used mills from floor. Make up new mil Trip in hole 5 stds
	21:30 - 22:00	0.50	DRLPRO	07	Α	Z		Repair rig. Encoder mismatch on rig. Troubleshoot rig. Reset PLC cards & caliberate drawworks
	22:00 - 23:00	1.00	DRLPRO	16	Α	Х		Trip in hole to 2532'. Tag something @ 2532'.
	23:00 - 23:30	0.50	DRLPRO	16	Α	X		Lay out 1 jt drill pipe. Install crossover sub. Change out 3 1/2 rental elevators.
	23:30 - 0:00	0.50	DRLPRO	16	Α	Х		Tag junk & begin reaming @ 2532'. 1-3k on bit. Pumping 315 gpm @ 750 psi. 1000-3000ft/lbs torque on top drive.
10/6/2008	0:00 - 0:30	0.50	DRLPRO	16	Α	X		Tagged at 2533' - 2535', mill through tight spot w/ WOB 2, RPM 100, Pump #2 70 SPM, GPM 315, Torque 1, SPP 748
	0:30 - 2:30	2.00	DRLPRO	16	Α	Χ		TIH
	2:30 - 7:00	4.50	DRLPRO	16	Α	X		Mill 4491' - 4518', WOB 2, RPM 100, Pump #2 70 SPM, GPM 315, Torque 2-5k, PSI 1442
	7:00 - 11:00	4.00	DRLPRO	05	Α	X		TOOH, laid down 2 joints, tight 4490' - 3900' drag 40k, 3900' - 2480' drag 20k. Break out mill and jur basket. Recovered 1 chunk iron 1/2" to 3/4" wide 1 1/2" long, it was stuck in mill
	11:00 - 11:30	0.50	DRLPRO	06	Α	Р		Rig Service
	11:30 - 14:00	2.50	DRLPRO	05	Α	X		Make up mill #6, junk basket, 1 - jt drill pipe, drilling jars, xo sub, junk basket, xo sub and TIH w/ remainder of drill string
	14:00 - 16:00	2.00	DRLPRO	05	Α	X		Work through tight spots at 2160', 2316', 2410', 2471'. Wash and ream 2160' - 2480'
	16:00 - 17:30	1.50	DRLPRO	05	Α	Χ		TIH
	17:30 - 18:00	0.50	DRLPRO	03	E	Х		Wash and ream 4301' - 4310'
	18:00 - 19:00	1.00	DRLPRO	05	Α	Х		Finsh tripping in hole. Tripping slow taking 15-30k going in hole from 4310' to 4506'
	19:00 - 22:00	3.00	DRLPRO	16	Α	X		Mill from 4506' to 4519.6'. Start out milling w/ 1/4k on mill. Pumping 315 gpm. 100 rpm on top drive. 2000-4000 ft/lbs torque. At 2100 hrs. running 15k mill w/ 3500-4000 ft/lbs of torque - not making any progress. Pump high vis sweep around.
	22:00 - 0:00	2.00	DRLPRO	05	Α	X		Trip out w/ mill. 30-40k overpull from 4300' to 4000 10-20k overpull from 4000' to 3300'.
10/7/2008	0:00 - 1:30	1.50	DRLPRO	05	Α	Х		TOOH w/ mill #6
	1:30 - 2:30	1.00	DRLPRO	05	Α	X		Break out & clean junk baskets. Laid down mill ar pickup magnet run #1
	2:30 - 5:00	2.50	DRLPRO	05	Α	Х		TIH w/ magnet run #1, tagged at 4518'
	5:00 - 5:30	0.50	DRLPRO	16	Α	Х		Work magnet 4490' - 4519'
	5:30 - 9:00	3.50	DRLPRO	05	Α	X		TOOH w/ magnet run #1. Break off magnet and junk basket and clean same. Recovered fair amount of junk
	9:00 - 12:00	3.00	DRLPRO	05	Α	X		Make up magnet and junk baskets and TIH w/ magnet run #2, tagged bridges at 2472' & 3428'
	12:00 - 13:00	1.00	DRLPRO	16	Α	Х		Work magnet and junk subs 4490' - 4519'
	13:00 - 15:30	2.50	DRLPRO	05	Α	Χ		TOOH w/ magnet run #2. Break off magnet & juni baskets and clean. No tight spots on trip out
	15:30 - 16:00	0.50	DRLPRO	06	Α	Р		Rig Service
	16:00 - 18:30	2.50	DRLPRO	07	Α	Р		Dock top drive and power down PLC's, swap electrical wires on generators, power up PLC's, un-dock top drive. Align traction motors on draw works

### **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

vent: DRILLI			Start Da			End D		Spud Date: 8/14/2008
ctive Datum: evel)	an Sea	UWI: 0	)/13/S/10	/E/20/0/	NENE/6/PM/N/	1,142.00/E/0/0/0/0		
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
	18:30 - 19:00	0.50	DRLPRO	05	Α	Χ		Pickup magnet and junk subs
	19:00 - 21:00	2.00	DRLPRO	05	Α	X		TIH w/ magnet run #3
	21:00 - 22:30	1.50	DRLPRO	16	Α	Х		Work magnet and junk baskets from 4519' - 4434'
	22:30 - 0:00	1.50	DRLPRO	05	Α	Х		TOOH w/ magnet run #3
10/8/2008	0:00 - 1:00	1.00	DRLIN1	16	Α	P		TOH W/MAGNET & JUNK BASKETS, BREAK OF & CLEAN
	1:00 - 4:30	3.50	DRLIN1	05	Α	P		TIH W/MAGNET & JUNK BASKETS, RUN # 5
	4:30 - 5:30	1.00	DRLIN1	16	Α	Р		WORK MAGNET & JUNK BASKETS F/4343 T/4519, RPM 50, SPM 75, PSI 2140, GPM 336
	5:30 - 9:00	3.50	DRLIN1	05	Α	Р		TOH W/MAGNET & JUNK BASKETS, BREAK O & CLEAN
	9:00 - 12:00	3.00	DRLIN1	05	Α	Р		MAKE UP MAGNET, 1 JT DP, DBL PIN, JUNK BASKET, BIT SUB, JARS, DBL. PIN, 2 JUNK BASKETS, BIT SUB, TIH, (BRIDGE @ 3497)
	12:00 - 13:00	1.00	DRLIN1	04	Α	Р		WORK MAGNET & JUNK BASKETS F/4343 T/4519, RPM 50, SPM 75, PSI 2140, GPM 33
	13:00 - 15:30	2.50	DRLIN1	05	Α	Р		TOH W/MAGNET & JUNK BASKETS, BREAK O & CLEAN
	15:30 - 18:00	2.50	DRLIN1	05	Α	P		TIH W/MAGNET & JUNK BASKETS, RUN #6
	18:00 - 19:00	1.00	DRLIN1	16	Α	Р		WORK MAGNET & JUNK BASKETS F/4343 T/4519, RPM 50, SPM 75, PSI 2140, GPM 338
	19:00 - 21:00	2.00	DRLIN1	05	Α	Р		TOH W/MAGNET & JUNK BASKETS, BREAK O & CLEAN
	21:00 - 22:00	1.00	DRLIN1	05	Α	Р		REPLACE SHOE ON MAGNET, MAKE UP JUNI BASKETS
	22:00 - 0:00	2.00	DRLIN1	05	Α	Р		TIH W/MAGNET & JUNK BASKETS, RUN #7
10/9/2008	0:00 - 1:00	1.00	DRLIN1	16	A	P		WORKING MAGNET & JUNK SUBS, F/4460 T/4519, RPM 50, SPM 75, PSI 2140, GPM 338
	1:00 - 2:30	1.50	DRLIN1	05	Α	P		TOH W/MAGNET & JUNK BASKETS
	2:30 - 4:00	1.50	DRLIN1	05	Α	Р		LAY DOWN JUNK BASKETS & CLEAN, PICK BACK UP JUNK BASKETS & MAGNET. RETRIEVED 8# OF IRON ON RUN #7
	4:00 - 6:00	2.00	DRLIN1	05	Α	Р		TIH W/MAGNET & JUNK BASKETS, STRING TOOK WT. @ 2534. RUN #8
	6:00 - 7:00	1.00	DRLIN1	16	Α	Р		WORKING MAGNET & JUNK SUBS, F/4460 T/4519, RPM 50, SPM 75, PSI 2140, GPM 338
	7:00 - 10:00	3.00	DRLIN1	05	Α	Р		LAY DOWN JUNK BASKETS & CLEAN, PICK BACK UP JUNK BASKETS & MAGNET. RETRIEVED 3# OF IRON ON RUN #8
	10:00 - 11:00	1.00	DRLIN1	05	Α	Р		L/D FISHING TOOLS
	11:00 - 11:30	0.50	DRLIN1	06	Α	Р		LUBRICATE RIG
	11:30 - 19:30	8.00	DRLIN1	05	Α	Р		MAKE UP NEW BHA W/ TO DRILL RATHOLE & TIH
	19:30 - 21:30	2.00	DRLIN1	09	D	Р		RAN GAMMA SURVEY F/4380 T/4519
	21:30 - 22:00	0.50	DRLIN1	16	A	P		WORKING JUNK BASKETS ON BOTTOM BEFORE DRILLING
0406	22:00 - 0:00	2.00	DRLIN1	02	С	P		DRLG F/4519 T/4528, WOB 16K, RPM 60, SPP 1765, GPM 338
0/10/2008	0:00 - 10:00 10:00 - 11:00	10.00	DRLPRO	02	C	Р		DRLG F/4528 T/ WOB 16K, RPM 60, SPM 75, SI 1765, GPM 338
	11:00 - 13:30	1.00 2.50	DRLPRO	04	A D	P P		CIRC. & CONDD. HOLE @ 4565 WORKING JUN BASKETS TOH TO RUN PARASITE STRING
	13:30 - 16:00			05 05				
	16:00 - 16:00 16:00 - 18:00	2.50 2.00	DRLPRO DRLPRO	05 11	A A	P P		LAY DOWN DIR. TOOLS & REST OF BHA HSM WITH CASERS L/D MACHINE, & RIG UP RUN PARASITE STRING

### **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

Event: DRILLI			Start Da			End D		Spud Date: 8/14/2008
Active Datum: Level)	RKB @6,423.00ft	(above Mea	an Sea	UWI: 0	)/13/S/10	/E/20/0/	NENE/6/PM/N/	/1,142.00/E/0/0/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
······································	18:00 - 0:00	6.00	DRLPRO	11	A	Р	(19	HSM WITH CASERS & L/D MACHINE, RUN 5 1/2 17# CSG. PARASITE STRING
10/11/2008	0:00 - 3:00	3.00	DRLIN1	11	В	Р		RUNNING 5 1/2 17# PARASITE STRING 100 JTS LANDED @ 4279 PACKED OFF, TESTED
	3:00 - 4:00	1.00	DRLIN1	11	Α	Р		RIG DOWN L/D MACHINE & CSG EQUIPMENT
	4:00 - 6:00	2.00	DRLIN1	06	D	Р		SLIP & CUT DRILLING LINE, CALIBRATE TOP DRIVE, CHANGE ELEVATOR BAILS & ELEVATORS, CHANGE OIL IN TOP DRIVE
	6:00 - 6:30	0.50	DRLIN1	06	Α	Р		RIG SERVICE
	6:30 - 14:30	8.00	DRLIN1	05	A	P		PICK UP DIRECTIONAL TOOLS AND AJUST MOTOR TO 1.37 DEG. TRIP IN HOLE SLOW DUE TO WIND.
	14:30 - 15:00	0.50	DRLIN1	04	G	Р		DISPLACE HOLE WITH AIR DOWN DP WITH 1500 CFM AT 2404'
	15:00 - 17:30	2.50	DRLIN1	05	Α	Р		TRIP IN HOLE SLOW. PUT 30 STDS BELOW DC AND RAN 16 STDS DC ON TOP.
	17:30 - 18:30	1.00	DRLIN1	04		P		DISPLACE HOLE WITH AIR DOWN DP WITH 1500 CFM AT 4504', 230 GPM
	18:30 - 20:00	1.50	DRLIN1	03	E	Р		WASH TO BTM. @ 4565, SPM 37, GPM 118, CFM 500, GPM 76, RPM 10, MTR RPM 156
	20:00 - 20:30	0.50	DRLIN1	07	Α	X		CHANGE OUT GASKET ON PASON FLOW SENSOR
	20:30 - 21:30	1.00	DRLIN1	02	С	Р		DRLG ROTATE F/4565 T/4567, WOB 4K, CFM 500 GPM 76, SPM 37, GPM 118, MTR RPM 156, SLIDE F/4567 T/4571 ON CONN. SHUT OFF AIR ON PARASITE STRING
	21:30 - 0:00	2.50	DRLIN1	02	С	Р		DRLG ROTATE F/4571T/4596, WOB 4K, CFM 500 GPM 76, SPM 37, GPM 118, MTR RPM 156, SLIDE F/4596 T/4600 ON CONN. SHUT OFF AIR ON PARASITE STRING
10/12/2008	0:00 - 1:00	1.00	DRLIN1	02	С	Р		DRLG F/4600 T/4603, WOB 6K, CFM 500 GPM 76, SPM 37 GPM 118, RPM 15 MUD MTR RPM 156, SHUT AIR OFF ON CONN.
	1:00 - 6:00	5.00	DRLIN1	05	Α	P		TRIP FOR BIT. INSPECT BIT AND MOTOR.
	6:00 - 7:00	1.00	DRLIN1	06	Α	Р		CLEAN UP TRIPPING HAZARDS ON FLOOR & RIG SERVICE
	7:00 - 11:30	4.50	DRLIN1	05	Α	Р		CHANGE OUT BIT, MUD MTR. & UBHO SUB TEST MM, ( UBHO SUB WAS LEAKING @ SET SCREW), SCRIBE MM
	11:30 - 14:00	2.50	DRLIN1	05	Α	Р		TIH TO 2411, DISPLACE HOLE WITH AIR W/1500 CFM
	14:00 - 15:00	1.00	DRLIN1	05	Α	Р		TIH TO 4512
	15:00 - 16:00	1.00	DRLIN1	04	Α	Р		DISPLACE HOLE W/AIR @ 4512. ESTABLISH CIRC., W/120 GPM DOWN PIPE, 500 CFM 76 GPM ON PARASITE STRING
	16:00 - 16:30	0.50	DRLIN1	03	Ε	Р		WASH F/4512 T/4603 CLEANING UP BOTTOM
	16:30 - 19:00	2.50	DRLIN1	02	С	P		DRLG ROTATE F/4603 T/4605, WOB 2/11, RPM 20/30, RPM M/M 156, CFM 500, GPM 76, SPM 37, GPM 118, SPP ON/OFF 1550/1400, TORQUE ON/OFF 1/1K. SLIDE F/4605T/4613
	19:00 - 20:00	1.00	DRLIN1	12	E	Р		LOST GAMMA SIGNAL WITH WEATHERFORD, CHECKED OUT SYSTEM, REGAINED SIGNAL
	20:00 - 0:00	4.00	DRLIN1	02	С	P		DRLG ROTATE F/4603 T/4700, WOB 2/11, RPM 20/30, RPM M/M 156, CFM 500, GPM 76, SPM 37, GPM 118, SPP ON/OFF 1550/1400, TORQUE ON/OFF 1/1K. LOSING MUD @ 4688 INCREASED CFM TO 1200, 184 GPM

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

Event: DRILLI	NG		Start Da	te: //30	/2008	End D	ate:	Spud Date: 8/14/2008
Active Datum: Level)	RKB @6,423.00ft	(above Mea	ın Sea	UWI: 0	0/13/8/10	/E/20/0/	NENE/6/PM/N	/1,142.00/E/0/0/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
10/13/2008	8:28 - 8:29 8:29 - 8:29	0.02	DRLIN1	02	С	P		DRLG F/4851 T/4855 WOB 10K, RPM 20, RPM M/M 156, CFM 1200, GPM 184, SPM 37, GPM119, SPP ON/OFF 1460/1350, TORQUE ON/OFF 1.5/1K
	17:00 - 17:00	0.00	DRLIN1	09	C	Р		DRLG F/4700 T/4851 WOB 10K, RPM 20, RPM M/M 156, CFM 1200, GPM 184, SPM 37, GPM119, SPP ON/OFF 1460/1350, TORQUE ON/OFF 1.5/1K SLIDE TOTAL OF 14' "C B,,"\
								'LL
	17:00 - 18:00	1.00	DRLIN1	04	Н	Р		ATTEMPT TO AIREATE ANNULAR
	17:00 - 17:00	0.00	DRLIN1					
	18:00 - 19:30	1.50	DRLIN1	05	F	Р		TOH TO 2982
	19:30 - 20:00	0.50	DRLIN1	04	G	Р		UNLOAD HOLE @ 2982 WITH AIR
	20:00 - 21:00	1.00	DRLIN1	05	F	Р		TIH TO 4448
	21:00 - 22:00	1.00	DRLIN1	04	Н	Р		UNLOAD HOLE @ 4448 WITH AIR
	22:00 - 22:30	0.50	DRLIN1	04	Α	Р		FILL PIPE & ANNULAR W/MUD, BREAK CIRC.
	22:30 - 23:30	1.00	DRLIN1	05	F	Ρ		TIH F/4448 T/4851
10/14/2008	0:00 - 6:00	6.00	DRLIN1	02	С	P		DRLG F/4855 T/5050 WOB 11, SPM 37, GPM 119, CFM 1200, GPM 184, DOWN PARASITE STRING, RPM 20, M/M RPM 158, TORQUE ON/OFF 1.5/1K, SPP ON/OFF 1250/1200
	6:00 - 21:30	15.50	DRLIN1	02	С	Р		DRLG F/5050 T/5077 WOB 11, SPM 12, GPM 38, CFM 500, GPM 76, DOWN DRILL PIPE, RPM 20, M/M RPM 158, TORQUE ON/OFF 1.5/1K, SPP ON/OFF 520/480
	21:30 - 0:00	2.50	DRLIN1	02	С	Р		DRLG F/5050 T/5077 WOB 11, SPM 18, GPM 57, CFM 400, GPM 61, DOWN DRILL PIPE, RPM 20, M/M RPM 158, TORQUE ON/OFF 1.5/1K, SPP ON/OFF 520/480
10/15/2008	0:00 - 2:30	2.50	DRLIN1	13	В	Р		RIG UP & PRESSURE TEST AIR EQUIPMENT FOR RUNNING AIR DOWN DP & AIR DOWN PARASITE STRING
	2:30 - 8:00	5.50	DRLIN1	02	С	Р		DRLG F/5077 T/5176 WOB 11, RPM 25, RPM M/M 158 SPM 30, GPM 96, CFM D/DP 150, GPM 23,CFM D/PARASITE 350, GPM 53, SPP 825,TORQUE 1.8K
	8:00 - 18:00	10.00	DRLIN1	02	С	Р		DRLG F/5176 T/5280 WOB 11, RPM 25, RPM M/M 158 SPM 30, GPM 96, CFM D/DP 150, GPM 23,CFM D/PARASITE 350, GPM 53, SPP 1070,TORQUE 2.1K
	8:00 - 8:00	0.00	DRLIN1	06	Α	Р		LUBRICATE RIG
	18:00 - 19:00	1.00	DRLIN1	07	Α	Χ		CHANGE OUT 2" GATE VALVE ON STAND PIPE
	19:00 - 0:00	5.00	DRLIN1	02	С	Р		DRLG F/5280 T/5347 WOB 11, RPM 25, RPM M/M 158 SPM 30, GPM 96, CFM D/DP 150, GPM 23,CFM D/PARASITE 350, GPM 53, SPP 1070 ,TORQUE 2.1K
10/16/2008	0:00 - 9:00	9.00	DRLIN1	02	<b>C</b>	Р		DRLG F/5347 T/5456 WOB 11, RPM 25, RPM M/N 158, SPM 30, GPM 96, CFM D/DP 150, GPM 23, CFM D/PARASITE 350, GPM 53, SP 1070, TORQUE 2.1K
	9:00 - 9:30	0.50	DRLIN1	06	Α	Р		LUBRICATE RIG
	9:30 - 17:00	7.50	DRLIN1	02	С	Р		DRLG F/5456 T/5554 WOB 11, RPM 25, RPM M/N 158, SPM 27, GPM 86, CFM D/DP 200, GPM 30, CFM D/PARASITE 500, GPM 76, SP 1070, TORQUE 2.1K
	17:00 - 18:00	1.00	DRLIN1	16	D	Χ.		TROUBLE SHOOT MWD TOOL
	18:00 - 21:30	3.50	DRLIN1	05	ı	Χ		TOH FOR MWD TOOL

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

Event: DRILLI	NG		Start Da			End Date		Spud Date: 8/14/2008
	RKB @6,423.00ft	(above Mea	an Sea	UWI: (	D/13/S/10	/E/20/0/NE	NE/6/PM/N	/1,142.00/E/0/0/0
.evel) Date	Time	Duration	Phase	Code	Subco	P/U	MD From	Operation
	Start-End	(hr)			de2		(ft)	
	21:30 - 23:00	1.50	DRLIN1	05	Α	Р		LAY DOWN DIRECTIONAL TOOLS, BIT & MUD MTR.
	23:00 - 0:00	1.00	DRLIN1	05	Α	Р		PICK UP NEW MUD MTR, BIT & SCRIBE
10/17/2000	0:00 - 2:00	2.00	DDLINA	0.5	^	n		DIRECTIONAL TOOL
10/17/2008	0.00 - 2:00	2.00	DRLIN1	05	Α	Р		FINISH PROGRAMMING DIRECTIONAL TOOL, TIH TO 2500 & UNLOAD HOLE WITH AIR DOWN DP.
	2:00 - 4:00	2.00	DRLIN1	05	Α	Р		TIH TO 4300 & UNLOAD HOLE WITH AIR DOW! DP& PARASITE STRING
	4:00 - 6:00	2.00	DRLIN1	05	Α	Р		FINISH TIH TO BOTTOM & BREAK CIRC.
	6:00 - 16:30	10.50	DRLIN1	02	С	P		DRLG ROTATING F/5554 T/5647, WOB 11, RPM 25, RPM M/M 158, CFM DP 200, GPM 30, CFM PARASITE 680, GPM 104,SPP 950, TORQUE 2.1
	16:30 - 17:00	0.50	DRLIN1	06	Α	Р		LUBRICATE RIG
	17:00 - 0:00	7.00	DRLIN1	02	С	Р		DRLG ROTATING F/5647 T/5688, WOB 11, RPM 25, RPM M/M 158, CFM DP 200, GPM 30, CFM PARASITE 680, GPM 104,SPP 950, TORQUE 2.1
10/18/2008	0:00 - 14:00	14.00	DRLIN1	02	С	Р		DRLG F/ 5688 T5814/WOB 11, RPM 25, RPM M/I 158, SPM 28, GPM 89, CFM DP 200, GPM 30, CFM PARASITE 680, GPM 104, SPP 1050, TORQUE 2.1K
	14:00 - 19:00	5.00	DRLIN1	05	Α	Р		TRIP OUT. L/D DIRECTIONAL GAMMA TOOL AND CHECK MOTOR AND BIT.
	19:00 - 0:00	5.00	DRLIN1	05	Α	Р		MAKE UP TOOLS AND TRIP IN.
10/19/2008	0:00 - 1:30	1.50	DRLPRO	05	Α	Р		TRIP IN TO 4426'
	1:30 - 2:30	1.00	DRLPRO	06	D	Р		SLIP AND CUT DRILLING LINE.
	2:30 - 3:00	0.50	DRLPRO	05	Α	Р		TRIP IN TO 5112'
	3:00 - 6:00	3.00	DRLPRO	02	G	Р		TROUGH HOLE FOR SIDETRACK #1 AT 5113' (OPEN HOLE SIDETRACK)
	6:00 - 20:30	14.50	DRLPRO	02	G	P		TIME DRILL F/5113'-5137
	20:30 - 0:00	3.50	DRLPRO	05	Α	Р		TRIP OUT AND AJUST MOTOR TO 2.00 DEG. CHANGE BITS
10/20/2008	0:00 - 3:30	3.50	DRLPRO	05	Α	Р		AJUST MOTOR TO 2.00 DEG. TRIP IN HOLE.
	3:30 - 5:00	1.50	DRLPRO	03	Ε	Р		WASH F/4571-5081 DRAGGING WALL.
	5:00 - 6:00	1.00	DRLPRO	02	G	Р		TROUGH AT 5113'
	6:00 - 13:30	7.50	DRLPRO	02	G	Р		TIME DRILL AT 5113'-5120' WOB 5-10, PSI 1340, CFM 700 PARASITE AT 1000 PSI. 2 ATTEMPT TO SIDETRACK WITH LEGDES BREAKING OFF. TOOL FACE AT 80-90 RIGHT.
	13:30 - 0:00	10.50	DRLPRO	02	G	Р		TIME DRILL AT 5080 TO 5092' WOB 5-10, PSI 1340, CFM 700 PARASITE AT 1000 PSI. 2 ATTEMPT TO SIDETRACK WITH LEGDES BREAKING OFF. GOT UP TO 19 WOB ON 2ND ATTEMPT. WORKING ON 3RD ATTEMPT. TOOI FACE AT 105-120 RIGHT.
10/21/2008	0:00 - 9:30	9.50	DRLPRO	02	G	P		TIME DRILL AT 5080 TO 5092', 5140-5145' WOB 5-10, PSI 1340, CFM 700 PARASITE AT 1000 PS 2 ATTEMPT TO SIDETRACK WITH LEGDES BREAKING OFF. GOT UP TO 19 WOB ON 2ND ATTEMPT. WORKING ON 3RD ATTEMPT. TOOI FACE AT 105-120 RIGHT.
	9:30 - 10:00	0.50	DRLPRO	05	Α	Р		TRIP IN TO CASING.
	10:00 - 11:00	1.00	DRLPRO	06	Α	P		RIG SERVICE
	11:00 - 14:00	3.00	DRLPRO	05	Α	Р		TRIP OUT PULL MWD TOOL, BREAK BIT AND
	<del>-</del>							CLEAN UP FLOOR

### **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

Level)	
Doto	Time

Date	Time	Duration	Phase	Code	Subco	P/U	MD From	Operation
	Start-End 14:00 - 19:30	(hr) 5.50	DRLPRO	13	C C	P	<u>(ft)</u>	TEST BOPE TESTED 250 LOWFOR 5 MINS. AND 3000 PSI FOR HIGH FOR 10 MINS. ON ALL VALVES, PIPE RAMS, BLIND RAMS. TEST ALL CHOKE LINES AND VALVES AND FLOOR VALVES. TESTED ANNULAR TO 1700 PSI. RAN ACCUM. TEST.
	19:30 - 0:00	4.50	DRLPRO	05	Α	Р		ADJUST MUD MOTOR FROM 2.00 DEG TO 1.37 DEG MAKE UP DIRECTIONALS TOOLS AND ORIENT. TRIP IN
10/22/2008	0:00 - 1:00	1.00	DRLPRO	05	Α	Р		TRIP IN BELOW SHOE AND BLOW DOWN WELL.
	1:00 - 2:00	1.00	DRLPRO	05	Α	Р		TRIP IN WASH 60' TO BTM. NO TIGHT SPOTS.
	2:00 - 3:00	1.00	DRLPRO	02	D	Р		DRILLING F/5814-5819 WOB 2-10, 200 CFM DOWN DP, 700 ON PARASITE, 120 GPM, 25 RPM 159 RPM ON MTR, PSI ON/OFF 850/700, TORQUE ON/OFF 3/1
	3:00 - 5:30	2.50	DRLPRO	02	D	Р	ı	SLIDE DRILLING F/5819-5830 WOB 25, 200 CFM 700 CFM ON PARASITE, 120 GPM, PSI ON/OFF 950/850,
	5:30 - 6:00	0.50	DRLPRO	02	D	P		DRILLING F/5830-5840 WOB 2-10, 200 CFM DOWN DP, 700 ON PARASITE, 120 GPM, 25 RPM 159 RPM ON MTR, PSI ON/OFF 850/700, TORQUE ON/OFF 3/1
	6:00 - 9:00	3.00	DRLPRO	02	D	Р		SLIDE DRILLING F/5840- 5847 WOB 25, 200 CFM 700 CFM ON PARASITE, 120 GPM, PSI ON/OFF 950/850,
	9:00 - 10:30	1.50	DRLPRO	02	D	Р		DRILLING F/5847- 5871' WOB 2-10, 200 CFM DOWN DP, 700 ON PARASITE, 120 GPM, 25 RPI 159 RPM ON MTR, PSI ON/OFF 850/700, TORQUE ON/OFF 3/1
	10:30 - 12:30	2.00	DRLPRO	02	D	Р		SLIDE Drilling 5871' - 5878', WOB 5-15K, GPM= 116 PUMP # 1 = 27, SPM = PUMP #2 = 0 SPM, RPM = 0, MOTOR RPM = 159, PRESS ON OFF, BTM = 960 PSI, SCFM DOWN PARASITE = 700 PARASITE PSI = 950 TORQUE ON / OFF BTM = OK, MUD WT = 8.6 VIS = 35, FOOTAGE = 7', FPI = 3.5 . TOOL FACE =
	12:30 - 14:30	2.00	DRLPRO	02	D	Р		ROTATE Drilling 5878' - 5913', WOB 5-15K, GPM 116 PUMP # 1 = 27, SPM = PUMP #2 = 0 SPM, RPM = 0, MOTOR RPM = 159, PRESS ON OFF, BTM = 960 PSI, DOWN PARASITE = 700, PARASITE PSI = 950 TORQUE ON / OFF BTM = OK, MUD WT = 8.6, VIS = 35, FOOTAGE = 35', FPH = 17.5,
	14:30 - 17:00	2.50	DRLPRO	02	D	P		SLIDE Drilling 5913' -5916', WOB 5-15K, GPM= 116 PUMP # 1 = 27, SPM = PUMP #2 = 0 SPM, RPM = 0, MOTOR RPM = 159, PRESS ON OFF, BTM = 960 PSI, SCFM DOWN PARASITE = 700 PARASITE PSI = 950 TORQUE ON / OFF BTM = OK, MUD WT = 8.6 VIS = 35, FOOTAGE = 3', FP = 1.2, TOOL FACE = 10L
	17:00 - 18:30	1.50	DRLPRO	02	D	P		ROTATE Drilling 5916' - 5931', WOB 5-15K, GPM 116 PUMP # 1 = 27, SPM = PUMP #2 = 0 SPM, RPM = 0, MOTOR RPM = 159, PRESS ON OFF, BTM = 960 PSI, SCFM DOWN PARASITE = 700 PARASITE PSI = 950 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.VIS = 35, FOOTAGE = 15', FPH = 10,
	18:30 - 19:30	1.00	DRLPRO	06	Α	Р		LUBERCATE RIG, AND CHANGE OUT GASKET ON FLOW SENSOR

### **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: 8/14/2008

Event: DRILLI	NG		Start Da	te: 7/30	/2008	End D	ate:	Spud Date: 8/14/2008
Active Datum: Level)	RKB @6,423.00ft	n Sea	UWI: 0	)/13/S/10	D/E/20/0/NENE/6/PM/N/1		/1,142.00/E/0/0/00	
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
	19:30 - 20:00	0.50	DRLPRO	02	D	P		ROTATE Drilling 5931' - 5935', WOB 5-15K, GPM= 222 PUMP # 1 = 27, SPM = PUMP #2 = 0 SPM, RPM = 0, MOTOR RPM = 159, PRESS ON OFF, BTM = 960 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 950 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.VIS = 35, FOOTAGE = 4', FPH = 2,
	20:00 - 23:30	3.50	DRLPRO	02	D	Р		SLIDE Drilling 5935' -5938', WOB 5-15K, GPM= 222 PUMP # 1 = 27, SPM = PUMP #2 = 0 SPM, RPM = 0, MOTOR RPM = 159, PRESS ON OFF, BTM = 960 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 950 TORQUE ON / OFF BTM = OK, MUD WT = 8.6 VIS = 35, FOOTAGE = 3', FPH = .86, TOOL FACE = 20R
	23:30 - 0:00	0.50	DRLPRO	02	D	P		ROTATE Drilling 5938' - 5939', WOB 5-15K, GPM= 222 PUMP # 1 = 27, SPM = PUMP #2 = 0 SPM, RPM = 0, MOTOR RPM = 159, PRESS ON OFF, BTM = 960 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 950 TORQUE ON / OFF BTM = OK, MUD WT = 8.VIS = 35, FOOTAGE = 1', FPH = 2,
10/23/2008	0:00 - 1:00	1.00	DRLPRO	02	Α	P		Rotate Drilling 5939' - 5943', WOB 5-15K, GPM= 120 PUMP # 1 = 28, SPM = PUMP #2 = 0 SPM, RPM = 25, MOTOR RPM = 160, PRESS ON OFF, BTM = 960 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 950 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.VIS = 35, FOOTAGE = 4', FPH = 4,
	1:00 - 2:00	1.00	DRLPRO	02	С	P		Slide Drilling 5943' - 5944', WOB 20-25K, GPM= 120 PUMP # 1 = 28, SPM = PUMP #2 = 0 SPM, RPM = 25, MOTOR RPM = 160, PRESS ON OFF, BTM = 1000/1200 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 950 TORQUE ON / OFF BTM = 0K, MUD WT = 8.VIS = 35, FOOTAGE = 1', FPH = 1, TOOL FACE 20R
	2:00 - 5:30	3.50	DRLPRO	05	Α	₽		TOOH at 5944' to inspect mud motor
	5:30 - 6:00	0.50	DRLPRO	05	Α	Р		Drain mud motor and inspect bit, laid down motor
	6:00 - 14:30	8.50	DRLPRO	05	Α	Р		Pickup mud motor and check. TIH to 3871'. Unloa hole w/ 700 scfm air. TIH to 4680'. Unload hole. TIH to 5871'
	14:30 - 15:00	0.50	DRLPRO	03	D	Р		Wash and ream 5871' - 5950'
	15:00 - 16:30	1.50	DRLPRO	02	Α	Р		Slide Drilling 5944' - 5950', WOB 30-34K, GPM= 120 PUMP # 1 = 28, SPM = PUMP #2 = 0 SPM, RPM = 25, MOTOR RPM = 160, PRESS ON OFF, BTM = 1093 PSI, SCFM DOWN PARASITE = 1000, PARASITE PSI = 860 TORQUE ON / OFF BTM = 0K, MUD WT = 8.VIS = 35, FOOTAGE = 6', FPH = 4, TOOL FACE 2L
	16:30 - 18:00	1.50	DRLPRO	02	D	Р		Rotate Drilling 5950' - 5960', WOB 10K, GPM= 120 PUMP # 1 = 28, SPM = PUMP #2 = 0 SPM, RPM 25, MOTOR RPM = 160, PRESS ON OFF, BTM = 960 PSI, SCFM DOWN PARASITE = 1000, PARASITE PSI = 860 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.VIS = 35, FOOTAGE =18', FPH = 10,

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298 Event: DRILLING Start Date: 7/30/2008 Spud Date: 8/14/2008

Event: DRILLI	ING		Start Da	te: 7/30	/2008	End D	Date: Spud Date: 8/14/2008
Active Datum: _evel)	RKB @6,423.00ft	(above Mea	an Sea	UWI: 0	0/13/S/10	/E/20/0/	/NENE/6/PM/N/1,142.00/E/0/0/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From Operation (ft)
	18:00 - 19:00	1.00	DRLPRO	02	D	P	Rotate Drilling 5960' - 5968', WOB 10K, GPM= 120 PUMP # 1 = 28, SPM = PUMP #2 = 0 SPM, RPM = 25, MOTOR RPM = 160, PRESS ON OFF, BTM = 960 PSI, SCFM DOWN PARASITE = 1000, PARASITE PSI = 860 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.VIS = 35, FOOTAGE =18', FPH = 8,
	19:00 - 21:30	2.50	DRLPRO	05	Α	Р	TOOH TO REPLACE 3-3/4 MUD MOTOR AND BIT
	21:30 - 22:30	1.00	DRLPRO	05	Α	Р	BREAK BIT L/D M/M PICKUP NEW MUD MOTOR
	22:30 - 0:00	1.50	DRLPRO				PULL MWD TOOL CHANGE OUT BATTERY AND CALLABRATE TOOL
10/24/2008	0:00 - 2:30	2.50	DRLPRO	05	Α	Р	TIH TO 4585'
	2:30 - 3:30	1.00	DRLPRO	04	Α	P	BLOW DOWN HOLE W/700 SCFM
	3:30 - 5:30	2.00	DRLPRO	05	Α	Р	TIH 4580' TO 5745', Tight at 5350', 5630', 5695'
	5:30 - 6:00	0.50	DRLPRO	02	D	P	Rotate Drilling 5968' - 5973', WOB 2-6K, GPM= 128 PUMP # 1 = 30, SPM = PUMP #2 = 0 SPM, RPM = 25, MOTOR RPM = 185, PRESS ON OFF, BTM = 1050 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 960 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.4, VIS = 35, FOOTAGE = 5', FPH = 10,
	6:00 - 8:00	2.00	DRLPRO	02	D	Р	Slide Drilling 5973' - 5983', WOB 6K, GPM= 124 PUMP # 1 = 29, SPM = PUMP #2 = 0 SPM, RPM =25, MOTOR RPM = 185, PRESS ON OFF, BTM = 1140 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 960 TORQUE ON / OFF BTM = 0K, MUD WT = 8.4 VIS = 36, FOOTAGE = 10', FPH = 5, TOOL FACE 20R
	8:00 - 8:30	0.50	DRLPRO	02	D	P	Rotate Drilling 5983' - 6000', WOB 10K, GPM= 128 PUMP # 1 = 29, SPM = PUMP #2 = 0 SPM, RPM 25, MOTOR RPM = 185, PRESS ON OFF, BTM = 1051/1001 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 960 TORQUE ON / OFF BTM = 2.5K, MUD WT = 8.4, VIS = 35, FOOTAGE = 17', FPH = 34,
	8:30 - 10:00	1.50	DRLPRO	02	D	P	Slide Drilling 6000' - 6008', WOB 16K, GPM= 124 PUMP # 1 = 29, SPM = PUMP #2 = 0 SPM, RPM 0, MOTOR RPM = 185, PRESS ON OFF, BTM = 1140 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 960 TORQUE ON / OFF BTM = 0K, MUD WT = 8.4 VIS = 36, FOOTAGE = 8', FPI = 5.3, TOOL FACE 10R
	10:00 - 11:00	1.00	DRLPRO	02	D	Р	Rotate Drilling 6008' - 6030', WOB 10K, GPM= 128 PUMP # 1 = 29, SPM = PUMP #2 = 0 SPM, RPM 25, MOTOR RPM = 185, PRESS ON OFF, BTM = 1051/1001 PSI, SCFM DOWN PARASITE = 1000 PARASITE PSI = 960 TORQUE ON / OFF BTM = 2.1K, MUD WT = 8.4, VIS = 35, FOOTAGE = 22', FPH = 22.
	11:00 - 13:00	2.00	DRLPRO	02	D	Р	Slide Drilling 6030' - 6038', WOB 16K, GPM= 124 PUMP # 1 = 29, SPM = PUMP #2 = 0 SPM, RPM 0, MOTOR RPM = 185, PRESS ON OFF, BTM = 1148/1001 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 960 TORQUE ON / OFF BTM = 0K, MUD WT = 8.4 VIS = 36, FOOTAGE = 7', FPI
	13:00 43:00	0.50		40	_	7	= 3.5,
	13:00 - 13:30	0.50	DRLPRO	12	E	Z	Trouble shoot MWD and Gamma

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLI	vent: DRILLING Start I ctive Datum: RKB @6,423.00ft (above Mean Sea					End D	ate:	Spud Date: 8/14/2008	
Active Datum: Level)	RKB @6,423.00ft	(above Mea	ın Sea	UWI: 0	)/13/S/10	/E/20/0/	NENE/6/PM/N	/1,142.00/E/0/0/0/0	
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation	
	13:30 - 15:00	1.50	DRLPRO	02	D	P	(i)	Rotate Drilling 6038' - 6064', WOB 10K, GPM= 128 PUMP # 1 = 29, SPM = PUMP #2 = 0 SPM, RPM = 25, MOTOR RPM = 185, PRESS ON OFF, BTM = 1112/1001 PSI, SCFM DOWN PARASITE = 1000, PARASITE PSI = 960 TORQUE ON / OFF BTM = 2.1K, MUD WT = 8.4, VIS = 35, FOOTAGE = 26', FPH = 17.3,	
	15:00 - 17:30	2.50	DRLPRO	02	D	P		Slide Drilling 6064' - 6074', WOB 14K, GPM= 124 PUMP # 1 = 29, SPM = PUMP #2 = 0 SPM, RPM = 0, MOTOR RPM = 185, PRESS ON OFF, BTM = 1112/1001 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 960 TORQUE ON / OFF BTM = 0K, MUD WT = 8.4 VIS = 36, FOOTAGE = 10', FPH = 4,	
	17:30 - 19:00	1.50	DRLPRO	02	D	P		Rotate Drilling 6074' - 6096', WOB 10K, GPM= 128 PUMP # 1 = 29, SPM = PUMP #2 = 0 SPM, RPM = 25, MOTOR RPM = 185, PRESS ON OFF, BTM = 1112/1001 PSI, SCFM DOWN PARASITE = 1000, PARASITE PSI = 960 TORQUE ON / OFF BTM = 2.1K, MUD WT = 8.4, VIS = 35, FOOTAGE = 22', FPH = 14.6,	
	19:00 - 21:00	2.00	DRLPRO	02	D	Р		Slide Drilling 6096' - 6100', WOB 20-30K, GPM= 127 PUMP # 1 =30, SPM = PUMP #2 = 0 SPM, RPM =25, MOTOR RPM = 188, PRESS ON OFF, BTM = 1112/1001 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 930 TORQUE ON / OFF BTM = 0K, MUD WT = 8.5 VIS = 35, FOOTAGE = 4', FPH =1.33', TOOL FACE = 0	
	21:00 - 22:30	1.50	DRLPRO	02	D	Р		Rotate Drilling 6100' -6127', WOB 10K, GPM= 128 PUMP # 1 = 30, SPM = PUMP #2 = 0 SPM, RPM = 25, MOTOR RPM = 185, PRESS ON OFF, BTM = 1112/1001 PSI, SCFM DOWN PARASITE = 1000, PARASITE PSI = 960 TORQUE ON / OFF BTM = 2.1K, MUD WT = 85, VIS = 34, FOOTAGE = 27', FPH = 18	
	22:30 - 0:00	1.50	DRLPRO	02	D	Р		Slide Drilling 6127' - 6133', WOB 20-30K, GPM= 127 PUMP # 1 =30, SPM = PUMP #2 = 0 SPM, RPM =25, MOTOR RPM = 188, PRESS ON OFF, BTM = 1112/1001 PSI, SCFM DOWN PARASITE = 700, PARASITE PSI = 930 TORQUE ON / OFF BTM = 0K, MUD WT = 8.5 VIS = 35, FOOTAGE = 6', FPH =4', TOOL FACE - 0	
10/25/2008	0:00 - 1:30	1.50	DRLPRO	02	D	Р		Slide Drilling 6133' - 6137', WOB 10K, GPM= 127 PUMP # 1 = 30, SPM = PUMP #2 = 0 SPM, AIR DOWN DP = 200 SCFM = 30 GPM, RPM = 25, MOTOR RPM = 169, PRESS ON OFF, BTM = 1100 PSI, SCFM DOWN PARASITE =700, PARASITE PSI = 930 TORQUE ON / OFF BTM = 0K, MUD WT = 8.5 VIS = 35, FOOTAGE = 4', FPH = 2.7FOOL FACE 0 R	
	1:30 - 6:30	5.00	DRLPRO	02	D	Р		Rotate Drilling 6137' - 6202', WOB = 10K, GPM = 127 PUMP # 1 = 30, SPM = PUMP #2 = 0 SPM, AIR DOWN DP = 700 SCFM , RPM = 25, MOTOR RPM = 169, PRESS ON/OFF, BTM = , SCFM DOWN PARASITE = 1200, PARASITE PSI = 930 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.5, VIS = 35, FOOTAGE = '65, FPH = 1.3, Increased air down parasite to 1200 scfm and 300 down drill pipe at 07:00 hours. Lost approximately 142 bbls mud between 05:30 - 07:00	

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

Event: DRILLI	NG		Start Da	te: 7/30	/2008	End D	ate:	Spud Date: 8/14/2008	
Active Datum: Level)	<del> </del>				n Sea UWI: 0/13/S/10/E/2			1,142.00/E/0/0/0/0	
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation	
	6:30 - 10:30	4.00	DRLPRO	02	D	Р		Slide Drilling 6202' - 6211', WOB = 40K, GPM = 74 PUMP #1 = 23, SPM = PUMP #2 ≈ 0 SPM, AIR DOWN DP = 300 SCFM = 46 GPM, RPM = 0, MOTOR RPM = 180 PRESS ONOFF, BTM = 110 PSI, SCFM DOWN PARASITE = 1200, PARASITE PSI = 975 TORQUE ON / OFF BTM = 0K, MUD WT = 8.5 VIS = 35, FOOTAGE = 9, FPH = 2.25, FOOL FACE = 0	
	10:30 - 12:00	1.50	DRLPRO	02	D	P		Rotate Drilling 6211' - 6217', WOB = 10-12K, GPM = 120 PUMP # 1 = 29, SPM = PUMP #2 = 0 SPM, AIR DOWN DP =200 SCFM = 1000 GPM, RPM = 25, MOTOR RPM = 175, PRESS ON/OFF, BTM = 1036 PSI, SCFM DOWN PARASITE = 1000, PARASITE PSI = 990 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.4, VIS = 35, FOOTAGE = '6, FPH = 4	
	12:00 - 18:00	6.00	DRLPRO	05	Α	Ρ		TOOH at 6217' to replace bit and BHA	
	18:00 - 19:00	1.00	DRLPRO	06	Α	P		Rig service	
	19:00 - 21:00	2.00	DRLPRO	05	Α	Р		TIH to 4530' Install rotating head	
	21:00 <i>-</i> 22:30 22:30 <i>-</i> 0:00	1.50 1.50	DRLPRO DRLPRO	05 05	D A	P P		Unload Hole at 4530' 1000 CFM down Parasite 70 cfm down drill pipe TIH 4530' to 6187' Ream 90' to bottom. Log gamm	
		7.00		00				over last 30' due to BHA change	
10/26/2008	0:00 - 0:30 0:30 - 3:00	0.50 2.50	DRLPRO DRLPRO	05 02	A D	P P		TIH  Rotate Drilling 6217' to 6234", WOB = 10-12K, GP	
								= 127 PUMP # 1 = 30, SPM = PUMP #2 = 0 SPM, AIR DOWN DP =200 SCFM = 1000 GPM, RPM = 25, MOTOR RPM = 169, PRESS ON/OFF,BTM = 1036 PSI, SCFM DOWN PARASITE = 1000, PARASITE PSI = 990 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.5, VIS = 35, FOOTAGE =17', FPH =6.8	
	3:00 - 6:00	3.00	DRLPRO	05	Α	Р		POOH	
	6:00 - 9:00	3.00	DRLPRO	05	Α -	P		Change out mud motors, make up bit, scribe tools and TIH to 3900', Install rotating head	
	9:00 - 10:30	1.50	DRLPRO	06	D	P		Dock top drive, cut drilling line and 2 point calibrat	
	10:30 - 11:00	0.50	DRLPRO	06	A	P		Rig Service	
	11:00 - 14:30 14:30 - 15:00	3.50 0.50	DRLPRO DRLPRO	05 05	A D	P P		TIH to 4650' and unload hole w/ 800 scfm air and gpm down DP and 1200 scfm down parasite string Break circulation and wash 6206' - 6234'	
	15:00 - 18:00	3.00	DRLPRO	02	D	Р		Rotate Drilling 6234' to 6239", WOB = 9k, GPM =	
		0.00	DILLI NO		J	•		123 PUMP # 1 = 39, SPM = PUMP #2 = 0 SPM, AIR DOWN DP = 200 SCFM = 30 GPM, RPM = 2 MOTOR RPM = 184, PRESS ONOFF,BTM = 103 PSI, SCFM DOWN PARASITE = 1300, PARASITE PSI = 700 TORQUE ON / OFF BTM = 3/1K, MUD WT = 8.5, VIS = 35, FOOTAGE = 5', FPH = 1.6	
	18:00 - 21:00	3.00	DRLPRO	05	Α	P		TOOH to check bit and motor	
	21:00 - 22:00	1.00	DRLPRO	05	Α	P		Break bit and mud motor. It took 3000 foot pounds of torque to attempt to drain motor and motor did r drain good. Bit showed flat crested wear down where cutters were the same height as the ROP limiters button	
	22:00 - 0:00	2.00	DRLPRO	05	Α	Р		Download Gamma log from tools	
10/27/2008	0:00 - 9:00	9.00	DRLPRO	12	Е	S		Wait on mud motor	
	9:00 - 10:30	1.50	DRLPRO	05	Α	Р		Strap and pickup Bico mud motor and insert Gamma tool	

## **Operation Summary Report**

Well: BLACKHAWK A-5H

Project: UTAH Site: CARBON Rig Name No: H&P 298/298

Event: DRILLING Start Date: 7/30/2008 End Date: Spud Date: 8/14/2008

vent: DRILLII		/ 1 14:	Start Da			End Da		Spud Date: 8/14/2008
evel)	RKB @6,423.00ft	(above Mea	an Sea	UVVI: U	/13/5/10	/E/20/0/N	NENE/6/PIM/N/	/1,142.00/E/0/0/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
·	10:30 - 13:00	2.50	DRLPRO	05	A	Р		TIH to 4170' and install rotating head
	13:00 - 14:30	1.50	DRLPRO	12	Α	Р		Wait on orders
	14:30 - 15:00	0.50	DRLPRO	06	Α	P		Rig service
	15:00 - 16:00	1.00	DRLPRO	07	В	S		Check lower quill bearing retainer, change oil in top drive and change swivel packing
	16:00 - 18:00	2.00	DRLPRO	05	Α	S		TOOH w/ directional tools, Pull R/T head
	18:00 - 19:30	1.50	DRLPRO	05	Α	S		Lay down direcrtional tools
	19:30 - 21:30	2.00	DRLPRO	05	Α	S		Rig up lay down machine
	21:30 - 0:00	2.50	DRLPRO	05	Α	S		Lay down 5 1/2" casing.
10/28/2008	0:00 - 4:30	4.50	DRLPRO	05	Α	S		Laying down 5-1/2 casing
	4:30 - 6:00	1.50	DRLPRO	05	Α	S		Rig down casing, And lay down truck
	6:00 - 7:00	1.00	DRLPRO	05	Α	S		Rig down power tong. Test TIW valve, and high/ lov travel limits
	7:00 - 7:30	0.50	DRLPRO	06	Α	P		Rig service
	7:30 - 10:30	3.00	DRLPRO	05	Α	Р		TIH, to 4400'
	10:30 - 12:00	1.50	DRLPRO	04	Α	Р		Circulate twice and spot high viscosity pill at 4400'. Pull up to 4300'
	12:00 - 12:30	0.50	DRLPRO	15	Ε	Р		Safety meeting with Halliburton and rig up
	12:30 - 13:00	0.50	DRLPRO	15	E	Р		Mix and spot 50 sacks class "G" Neat cement plug at 15.8 ppg, yeild 1.15, 4.97 gallons per sack water with Halad 322 plug at 4300'. BLM representative Walton Willis decline to witness setting plug
	13:00 - 13:30	0.50	DRLPRO	05	Α	P		TOOH, 8 stands
101001000	13:30 - 0:00	10.50	DRLPRO	15	A	P		Circulate casing clean and WOC
10/29/2008	0:00 - 1:00	1.00	DRLPRO	12	В	P		Wait on cement, circulate while waiting.
	1:00 - 2:00	1.00	DRLPRO	05	C	P -		TIH to 4100'
	2:00 - 6:30	4.50	DRLPRO	05	С	P		Tag cement @ 4100'
	6:30 - 7:30	1.00	DRLPRO	05	С	P		Rig down cement equipment.
	7:30 - 8:00	0.50	DRLPRO	05	Α	Р		Rig up lay down crew.
	8:00 - 12:30	4.50	DRLPRO	05	Α	Р		Lay down 2-7/8 drill string.
	12:30 - 14:00	1.50	DRLPRO	05	Α	Р		TIH, drill collars and drill pipe.
	14:00 - 17:30	3.50	DRLPRO	05	Α	Р		Lay down drill collarsand drill pipe.
	17:30 - 19:00	1.50	DRLPRO	11	Α	P		Rig down lay down truck.
	19:00 - 0:00	5.00	DRLPRO	13	Α	Р		Nipple down rotate head and BOP equipment.
10/30/2008	0:00 - 12:00	12.00	DRLPRO	13	А	P		Nipple down and pickup annular and set aside.  Open doors on rental double gate and remove H&I rams and install rental rams, open doors on H&P double gate and install H&P rams, changed rams and top seals. Nipple down rental double gate and set out. Nipple down H&P spacer spool and set out Pickup H&P's annular and nipple up to H&P double gate. Nipple down kill line and choke lines. Pickup BOP stack and set on BOP carrier. Nipple up
	12:00 - 0:00	12.00	DRLPRO	01	E	Р		master flange and valve to sucure well. RIG RELEASED at 12:00 hours on 10/30/08

## STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING	5. LEASE DESIGNATION AND SERIAL NUMBER:
	FEE *UTU71675
SUNDRY NOTICES AND REPORTS ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	7. UNIT OF CA AGREEMENT NAME:
1. TYPE OF WELL OIL WELL GAS WELL OTHER	8. WELL NAME and NUMBER: Blackhawk A-5H
2. NAME OF OPERATOR:  Anadarko Petroleum Corporation	9. API NUMBER: 43-007-314 (2) 2.
3. ADDRESS OF OPERATOR: PHONE NUMBER:	10. FIELD AND POOL, OR WILDCAT:
1099 18th St. Ste 1800 CITY Denver STATE CO ZIP 80202 (720) 929-6832 4. LOCATION OF WELL	Helper/Ferron A
FOOTAGES AT SURFACE: 1142' FNL, 263' FEL Lat: 39.685470 Long: 110.817271	COUNTY: Carbon
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 20 13S 10E	STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPO	RT, OR OTHER DATA
TYPE OF SUBMISSION TYPE OF ACTION	
✓ NOTICE OF INTENT ☐ ACIDIZE ☐ DEEPEN	REPERFORATE CURRENT FORMATION
(Submit in Duplicate) ALTER CASING FRACTURE TREAT	SIDETRACK TO REPAIR WELL
Approximate date work will start: CASING REPAIR NEW CONSTRUCTION	TEMPORARILY ABANDON
CHANGE TO PREVIOUS PLANS DEPARTOR CHANGE	TUBING REPAIR
CHANGE TUBING PLUG AND ABANDON	VENT OR FLARE
SUBSEQUENT REPORT CHANGE WELL NAME PLUG BACK (Submit Original Form Only)	WATER DISPOSAL
Date of work completion:  CHANGE WELL STATUS  PRODUCTION (START/RESUME)	WATER SHUT-OFF
COMMINGLE PRODUCING FORMATIONS	✓ OTHER: <u>Leave Location as is</u>
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volume	es etc.
Anadarko Petroleum Corporation requests the permission to leave the Blackhawk A-5H loca fenced for safety reasons and the location will be maintained.	
This request is subsequent to the decision of suspending drilling for one year to evaluate be coal section. Thank you.	st drilling practices to the targeted
Approved by the Utah Division of Oil, Gas and Mining	
Date: /-7,-09	
By:	
Sy. Para	
	en e
NAME (PLEASE PRINT) Cindy B. Vue TITLE Regulatory Analy	st
SIGNATURE OFFICE DATE 11/24/2008	

(This space for State use only)

(5/2000)

COPY SENT TO OPERATOR

(See Instructions on Reverse Side)

RECEIVED NOV 2 5 2008

Form 3160-5 (August 2007)

## UNITED STATES

### DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0137 Expires: July 31, 2010

5. Lease Serial No. UTU71675 SUNDRY NOTICES AND REPORTS ON WELLS 6. If Indian, Allottee or Tribe Name Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals. 7. If Unit of CA/Agreement, Name and/or No. SUBMIT IN TRIPLICATE - Other instructions on page 2. 1. Type of Well 8. Well Name and No Oil Well **✓** Gas Well Other **BLACKHAWK A-5H** 2. Name of Operator ANADARKO PETROLEUM CORPORATION 3a. Address 10. Field and Pool or Exploratory Area 3b. Phone No. (include area code) 1099 18th St. Ste 1800 Denver, CO 80202 720-929-6832 4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)
NENE Sec 20. T13S-R10E 11. Country or Parish, State CARBON, UT 1142' FNL, 263' FEL LAT: 39.685470 LONG: 110.817271 12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION Acidize Deepen Production (Start/Resume) Water Shut-Off Notice of Intent Alter Casing Fracture Treat Reclamation Well Integrity Casing Repair New Construction Recomplete Subsequent Report Change Plans Plug and Abandon ✓ Temporarily Abandon Final Abandonment Notice Convert to Injection Plug Back Water Disposal 13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.) Currently this well is still in review and is Shut-in/Temporarily Abandoned until further notice. No activity is anticipated in the next three months. A well status update will be sent in four months if not sooner. Thank you. 14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) Cindy B. Vue Title REGULATORY ANALYST Date 12/03/2008 Signature THIS SPACE FOR FEDERAL OR STATE OFFICE USE Approved by Title Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any design and the United States any false,

(Instructions on page 2)

entitle the applicant to conduct operations thereon.

fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

DEC 0 8 2008

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

DEVICED OF OU CAS AND MINING

DIVISION OF OIL, GAS AND MI	NING	UTU 71675 *FEE
SUNDRY NOTICES AND REPORTS	S ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposals to drill new wells, significantly deepen existing wells below cur drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL f	rrent bottom-hole depth, reenter plugged wells, or to form for such proposals.	7. UNIT of CA AGREEMENT NAME: N/A
1. TYPE OF WELL OIL WELL GAS WELL OTHER	СВМ	8. WELL NAME and NUMBER: BLACKHAWK A-5H
2. NAME OF OPERATOR:		9. API NUMBER:
ANADARKO PETROLEUM CORPORATION 3. ADDRESS OF OPERATOR:	PHONE NUMBER:	4300731402 10. FIELD AND POOL, OR WILDCAT:
	80217-3779 (720) 929-6832	HELPER/ FERRON A
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1142' FNL, 263' FEL LAT: 39.685470	LONG: -110.817271	COUNTY: CARBON
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 20 13S 1	I0E	STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICAT	TE NATURE OF NOTICE, REPO	RT, OR OTHER DATA
TYPE OF SUBMISSION	TYPE OF ACTION	
NOTICE OF INTENT (Submit in Duplicate)  ACIDIZE  ACIDIZE  ALTER CASING	DEEPEN  FRACTURE TREAT	REPERFORATE CURRENT FORMATION SIDETRACK TO REPAIR WELL
Approximate date work will start: CASING REPAIR	NEW CONSTRUCTION	TEMPORARILY ABANDON
CHANGE TO PREVIOUS PLANS	OPERATOR CHANGE	TUBING REPAIR
CHANGE TUBING	PLUG AND ABANDON	VENT OR FLARE
SUBSEQUENT REPORT CHANGE WELL NAME	PLUG BACK	WATER DISPOSAL
(Submit Original Form Only)  CHANGE WELL STATUS	PRODUCTION (START/RESUME)	WATER SHUT-OFF
Date of work completion:  COMMINGLE PRODUCING FORMATIONS	RECLAMATION OF WELL SITE	OTHER:
CONVERT WELL TYPE	RECOMPLETE - DIFFERENT FORMATION	
Status Update: TA Well has a 200' Cement plug from 4100'-4300'. Drilling Operations are still suspended pending further eval		es, etc.
NAME (PLEASE PRINT) Cindy B. Vue	TITLE Regulatory Analy	yst I
SIGNATURE MANUEL	DATE 3/11/2009	
This space for State use only)		RECEIVED

DIV. OF O' DAS & STUME

MAR 1 6 2009



### UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB NO. 1004-0137 Expires: July 31, 2010

5. LEASE DESIGNATION AND SERIAL NO.

### WELL COMPLETION OR RECOMPLETION REPORT AND LOG

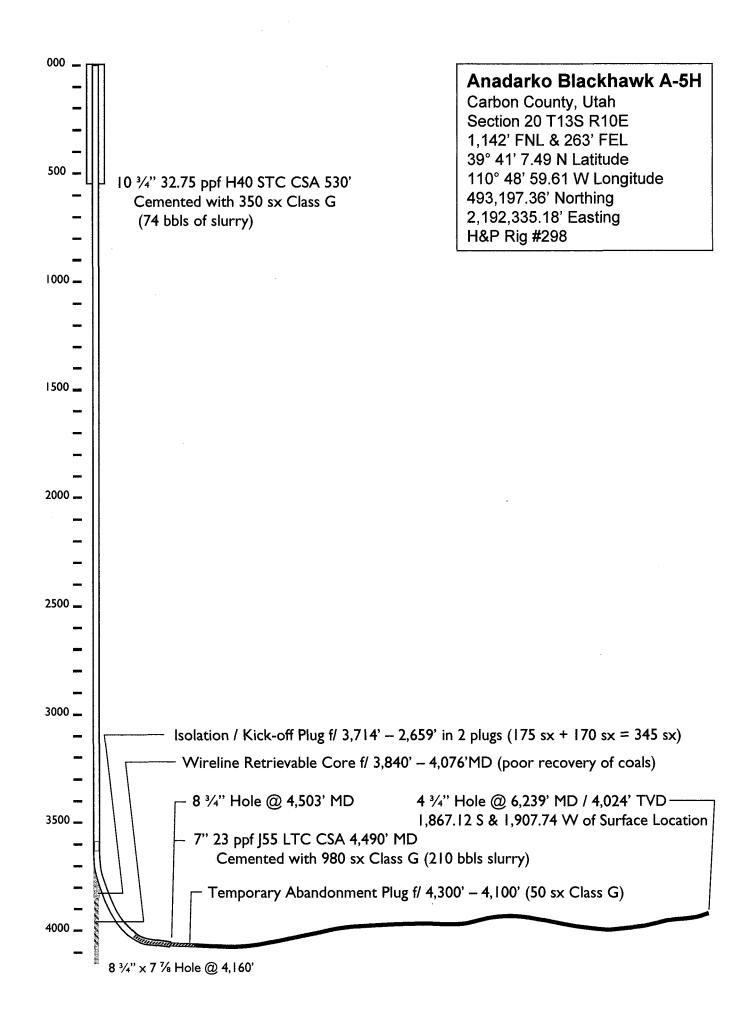
		UT	U 71675
-	6.	INDIAN ALLOTTEE C	R TRIBE NAME
			N/A
	7.	UNIT AGREEMENT	
			N/A
	8.	FARM OR LEASE NAT	ME
		Blackhawk	A-5H
	9.	API WELL NO.	

1a. Type of Wel	1	Oil Well	Gas We	ll Dr	у [	X Oth	er C	BM		- 10	6. IND	IAN ALLOT	TEE OR TRIB	E NAM	ИE
b. Type of Com	pletion	New Well	Workov	er De	epen	Plu	g Back	Diff.	Resvr.				N/A		4
		Office								ſ	7. UN	T AGREEME			· <del>-</del> · · · · · · · · · · · · · · · · · · ·
2. Name of Opera	otor	Other						=			8. FAI	M OR LEAS	N/A ENAME		
ANADARKO		M CORPO	RATION									Blackhaw			A-5H
3. Address						3a.	Phone No.	(includ	e area c	ode)	9. API	WELL NO.			
P.O. BOX 173						- 1	Cindy Vu	ie 720	)-929-é	5832			<b>7</b> 4 <b>7</b> -007-314	02	
DENVER, CO		··· •	¥	ST P T			Chiay ve	10 / 20			10 17		1 007 514		
	/ell (Report locati 1142'	-	a in accoraance	: with Feaera	- '	)*					10. FI	ELD NAME			
At curtace	FNL 263' I	FEL NE	NE L	at.	39.68547		Long.	-11	10.817		11 CE		elper/ Ferro	_	DVDV
At top prod. Interv	ol reported below	appı	rox appro	ОХ							OR AR		T 13S		10E
7.30		2189	FNL 6869 F								12. C	OUNTY OR	PARISH 13.	ST	ATE
At total depth	3025 FNL 2	148 FEL	approx for	tage from s	urface hole	pe	r Its	m	rev	Ru	<del></del>	CARBON	1		TAH
14. Date Spudde	1	Date T.D. R		ı	. Date Comp 10/30/2008	lefted X D	0. 1	г	71 1		17. EL		DF, RKB, RT,	GR, e	
8/9/20			0/26/2008			X) D		<u></u>		to Prod.	1. D1	6423'	GR		KB
18. Total Depth:	MD TVD	6239' 402 <b>43</b>	19. Plug ba	ck 1.D.:	MD TVD		4100 39	წეე	20.	Depth Bri	age Plu	g Set: M			
21. Type Ele	ectric & other Log		t a copy of each	)			<u> </u>		22.	Was well	cored?	□ No		s (Sul	omit analysis)
-,,,,		(	Gamma R							Was DST		= ;;			omit report)
			Oummu 10	,						Direction		<u> </u>	<u> </u>	-	omit copy)
	17: D 1/	n								Direction	ai Sui ve	y,   140	X Ye	s (suc	лик сору)
	nd Liner Record (						Stage Cem	enter	No. of S	Sks. & Type	of		1		
Hole Size	Size/ Grade	Wt. (#/f	ft.) Top	(MD)	Bottom(M	D) _	Depth			Cement	Sl	urry Vol. (Bbl	) Cement To	op*	Amount Pulled
13.5"	10-3/4"/H-40	32.75	#	0'	530'				350	sx Class (	G ·	74			
8.75"	7"/ J-55	23#		0'	4490'				980	sx Class	G	210			
		<u> </u>													
TA	Disco		41	001	42001	· · · · · ·			£0.a	· Class C	<del>.  </del> -	10			
TA 24. Tubing F	1 0	1	41	.00'	4300'		<u></u>		30 S	x Class C	<u>,                                    </u>	10			
Size	Depth Set (M	D) Packe	er Depth (MD)	S	ize	Deptl	Set (MD)	Packe	r Depth	(MD)	Size	Dep	th Set (MD)	Pa	cker Depth (MD)
25. Producin	ng Intervals					26.	Perforation	Record	1						
	Formation		Тор	Во	ttom	P	erforated Int	eval		Size	_	No. of Holes		Perf. S	Status
A) n/a	<u></u>						· · · · · · · · · · · · · · · · · · ·		_		-‡-				
B)											+		-		
C) D)											-				
	cture Treatment, (	Comont Couses	ora Uta	1	i i								4		
	epth Interval	ement squee	ze, bic.				Amo	unt and	1 Type o	f Material					
n/a	opui mioi vai	n/	′a						71		-				
			<u> </u>												•
									-						
28. Production	on- Interval A-B-C										•				
Date First	Test Date	Hours Teste	1	Oil Bbl	Gas MCF		Water	Oil		Gas Grav	vity	Production 1	Method		
Produced		1	Production		:		Bbl	Gravi	tv						
Choke Size	Tbg. Press	Csg Press	s. 24 Hr. Rate	Oil Bbl	Gas MCF		Water	Gas: 0	Oil	Well Star	tus				
	Flwg. SI		]				Bbl	Ratio							
	<u> </u>	J		L	L			L		<u> </u>			TA		
28a. Production	on- Interval B Test Date	Hours Teste	ed Test	Oil Bbl	Gas MCF		Water	Oil		Gas Grav	vitv	Production	Method		
Produced	- 550 2500	10000	Production	201			Bbl	Gravi	tv	J 014		- Tourion I		. سندان	2 E (Figure 1777)
		<u> </u>			ļ							<u> L</u>	<u>HE(</u>		IVED_
Choke Size	Tbg. Press Flwg.	Csg Press	s. 24 Hr. Rate	Oil Bbl	Gas MCF		Water Bbl	Gas: 6		Well Star	tus			•	1
	SI		-										MAR	3	2009

<sup>\*</sup> See instructions and spaces for additional data on page 2)

28b. Producti	on-Interval C													
Date First Produced	Test Date	Hou	rs Tested	Test Production	Oil Bbl	Gas MCF	Water Bbl	Oil Gravitv	Gas Gravity	Production Metho	od			
Choke Size	Tbg. Press Flwg. SI	Csg	Press.	24 Hr. Rate	Oil Bbl	Gas MCF	Water Bbl	Gas: Oil Ratio	Well Status					
	on- Interval D													
Date First Produced	Test Date	Hou	rs Tested	Production	Oil Bbl	Gas MCF	Water Bbl	Oil Gravitv	Gas Gravity	avity Production Method				
Choke Size	Tbg. Press Flwg. SI	Csg	Press.	24 Hr. Rate	Oil Bbl	Gas MCF	Water Bbl	Gas: Oil Ratio	Well Status					
29 Disposition of	of Gas (Sold, us	ed for fue	el, vented,	etc.)										
	ortant zones of	porosity	and cont	ents thereof: (		s and all drill-stem tes		31. Formati	on (Log) Markers:	,				
Format	Formation Top Bottom Descriptions Contents, Etc. Name Top  Measured Depth													
			***************************************					Ferron			3873'	<u></u>		
											TD.	6239'		
32. Additional 8/23/08 -	remarks (incl Core well f			•				•						
8/29/08 -	Isolation P	lug: 32	246-37	14' Class	G Cmt-17	'5 sx								
10/28/08	-Cement I	Plug 41	100-43	00' Class	G- 50 sx.	(BLM Rep Wal	ton Willis	s declined t	to witness sett	ing plug.)				
						available. Drilling Summ	ary Repoi	t.						
Electrical/	33. Indicate which items have been attached by placing a check in the appropriate boxes:  Blectrical/ Mechanical Logs (1 full set required)  Geologic Report  DST Report  X Directional Survey  Core Analysis  Other:													
34. I hereby certi		-		l information	is complete an	d correct as determin				uctions)*				
Name (pleas	e print) <u>Cin</u>	dy Vu	e		·		<del></del>	Regulatory	Analyst I					
		13 U.S.C. S	Section 121	2, make it a crim	e for any person	knowingly and willfully to	<del></del>	3/26/2009	y of the United States a	any false, fictitious or fr	raudulent ststeme	ents or representations		
as to any matter withi	n its jurisdiction.													

(Continued on page 3) (Form 3160-4, page 2)





## **Anadarko Petroluem Corp**

CARBON CO, UTAH BLACKHAWK A-5H BLACKHAWK A-5H

ML

Survey: FINAL

## **Standard Survey Report**

14 November, 2008





BLACKHAWK A-5H ML CARBON CO, UTAH SEC 20 T13S R10E 1142' FNL, 263' FEL 39° 41' 7.490 N 110° 48' 59.610 W RIG: H&P 298



WELL DETAILS: BLACKHAWK A-5H

Ground Level: 6391.01
+NV-S +EJ-W Northing Easting Latittude Longitude Stot

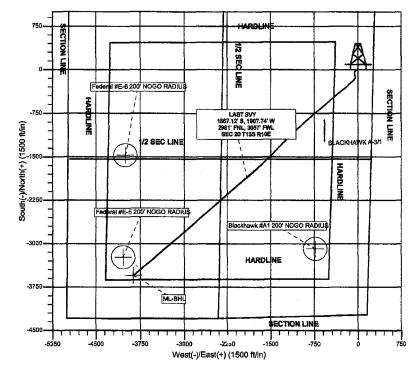
0.00 0.00 493197.36 2192335.18 39° 41' 7.490 N 110° 48' 59,610 W

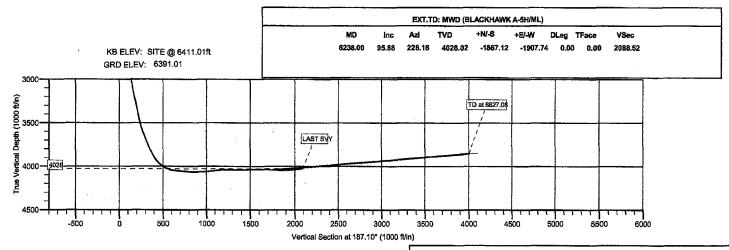
SECTION DETAILS												
	Sec	MID	inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target	
	1	5745.00	86.63	225.68	4042.36	-1534.40	-1545.21	0.00	0.00	2175.96		
	2	5809.37	93.58	229.06	4042.25	-1577.97	-1592.54	12.00	25.97	2240.29		
	3	8827.06	93,58	229.06	3854.00	3551.47	-3867.68	0.00	0.00	5250.89	ML-BHL	



Azimuths to True North Magnetic North: 11.93°

Magnetic Field trength: 52223.6snT Dip Angle: 65.41° Date: 8/6/2008 Model: BGGM2007





Survey: MWD (BLACKHAWK A-5H/ML)

Created By: Robert H. Scott



### Weatherford International Ltd.

Survey Report



Company:

Anadarko Petroluem Corp

**Project** Site:

CARBON CO, UTAH **BLACKHAWK A-5H** 

Well:

**BLACKHAWK A-5H** 

Wellbore: Design:

ML

Survey

**Local Co-ordinate Reference:** 

**TVD Reference:** 

MD Reference:

North Reference:

**Survey Calculation Method:** Database:

Well BLACKHAWK A-5H

SITE @ 6411.01ft SITE @ 6411.01ft

True

Minimum Curvature

EDM 2003.21 Single User Db

Project

CARBON CO. UTAH, SEC 20 T13S-R10E

Map System: Geo Datum:

US State Plane 1927 (Exact solution) NAD 1927 (NADCON CONUS)

0.00 ft

Utah Central 4302

System Datum:

Mean Sea Level

Site

From:

BLACKHAWK A-5H, SEC 20 T13S R10E

Site Position:

Map Zone:

Northing:

493,197.36ft

Latitude:

39° 41' 7.490 N

**Position Uncertainty:** 

Lat/Long

Easting: Slot Radius:

2,192,335.18ft 0.00ft Longitude: Grid Convergence: 110° 48' 59.610 W

0.44°

Well

**BLACKHAWK A-5H** 

**Well Position** 

+N/-S +E/-W 0.00 ft 0.00 ft Northing: Easting:

493,197.36 ft 2,192,335.18 ft

11.93

Latitude: Longitude: 39° 41' 7.490 N

**Position Uncertainty** 

0.00 ft

Wellhead Elevation:

ft

**Ground Level:** 

65.41

110° 48' 59.610 W

6,391.01 ft

Wellbore

ML

Magnetics

**Model Name** 

BGGM2007

3,000.00 GYRO (ML)

6,238.00 MWD (ML)

Sample Date

8/6/2008

Declination (°)

Dip Angle (°)

Field Strength (nT)

52,224

Design

Survey

**Audit Notes:** 

Version:

1.0

Phase:

**ACTUAL** 

Tie On Depth:

0.00

**Vertical Section:** 

Depth From (TVD) (ft)

0.00

+NV-S **(ft)** 0.00

+E/-W (ft) 0.00

Direction (°) 187.10

**Survey Program** 

Date 11/14/2008

From (ft)

100.00

3,088.00

Τo (ft)

Survey (Wellbore)

**Tool Name** 

Description

**GYRO** MWD

GyroCompass Mode MWD - Standard

Survey

	Measured Depth (ft)	inclination (*)	Azimuth	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (*/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	· · · · · · · · · · · · · · · · · · ·
	3,000.00	5.26	162.00	2,994,47	-133.12	-44.61	137.61	0.00	0.00	0.00	
	3,088.00	7.25	186.18	3,081.95	-142.48	-43.96	146.82	3.70	2.26	27.48	
	3,151.00	12.19	209.43	3,144.05	-152.24	-47.66	156.96	9.87	7.84	36,90	
	3,214.00	15.69	215.68	3,205.19	-164.95	-55.90	170.60	6.04	5.56	9.92	
	3,277.00	16.06	222.93	3,265.79	-178.26	-66.80	185.14	3.20	0.59	11.51	
	3,340.00	16.25	227.93	3,326.31	-190.54	-79.28	198.88	2.23	0.30	7.94	
•	3,372.00	16.38	228.39	3,357.02	-196.54	-85.98	205.66	0.57	0.41	1,44	
	3,404.00	16.06	230.93	3,387.75	-202.33	-92.79	212.24	2.43	-1.00	7.94	
	3,435.00	16.13	233.06	3,417.53	-207.62	-99.56	218.33	1.92	0.23	6.87	
	3,467.00	16.38	232.18	3,448.25	-213.05	-106.68	224.60	1.10	0.78	-2.75	•
	3,498.00	17.94	230.18	3,477.87	-218.79	-113.80	231.18	5.38	5.03	-6.45	:
	3.530.00	18.69	229.68	3.508.25	-225.27	-121.49	238.55	2.39	2.34	-1.56	



### Weatherford International Ltd.

Survey Report



Company: Project: Anadarko Petroluem Corp CARBON CO, UTAH

Site: Well: BLACKHAWK A-5H BLACKHAWK A-5H

Weilbore: Design: ML Survey Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method: Database: Well BLACKHAWK A-5H

SITE @ 6411.01ft SITE @ 6411.01ft

True

Minimum Curvature

EDM 2003.21 Single User Db

Survey

Measured Depth (ft)	inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/190ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,561.00	20.50	230.31	3,537.45	-231.95	-129.46	246.17	5.88	5.84	2.03
3,593.00	23.19	229.43	3,567.15	-239.63	-138.56	254.91	8.47	8.41	-2.75
3,625.00	24.69	226.31	3,596.40	-248.34	-148.18	264.75	6.13	4.69	-9.75
3,656.00	25.25	225.06	3,624.50	-257.48	-157.54	274.97	2.48	1.81	-4.03
3,688.00	25.88	222.56	3,653.37	-267.45	-167.09	286.04	3.90	1.97	-7.81
3,719.00	26.06	221.56	3,681.24	-277.53	-176.19	297.17	1.53	0.58	-3.23
3,750.00	27.38	223.43	3,708.93	-287.80	-185.60	308.53	5.05	4.26	6.03
3,782.00	29.06	226.93	3,737.13	-298.45	-196.34	320.42	7.37	5.25	10.94
3,813.00	29.69	227.43	3,764.14	-308.79	-207.50	332.06	2.18	2.03	1.61
3,845.00	31.19	228.43	3,791.73	-319.65	-219.53	344.32	4.95	4.69	3.12
3,876.00	33.50	231.68	3,817.92	-330.28	-232.25	356.44	9.32	7.45	10.48
3,908.00	35.94	233.43	3,844.22	-341.35	-246.73	369.22	8.24	7.62	5.47
3,935.00	38.25	233.93	3,865.76	-351.00	-259.85	380.41	8.63	8.56	1.85
3,967.00	41.74	233.34	3,890.27	-363.19	-276.40	394.56	10.97	10.91	-1.84
3,998.00	44.75	230.81	3,912.85	-376.25	-293.14	409.59	11.20	9.71	-8.16
4,029.00	46.75	229.81	3,934.48	-390.43	-310.23	425.77	6.85	6.45	-3.23
4,062.00	50.50	230.18	3,956.29	-406.35	-329.19	443.91	11.39	11.36	1.12
4,093.00	55.62	229.52	3,974.91	-422.32	-348.12	462.10	16.60	16.52	-2.13
4,125.00	61.19	229.81	3,991.67	-439.96	-368.89	482.16	17.42	17.41	0.91
4,156.00	66,38	230.68	4,005.36	-457.73	-390.27	502.44	16.93	16.74	2.81
4,187.00	68.56	229.18	4,017.24	-476.17	-412.18	523.44	8.33	7.03	-4.84
4,219.00	70.69	229.56	4,028.38	-495.70	-434.94	545.64	6.75	6.66	1.19
4,250.00	74.19	229.56	4,037.73	-514.87	-457.43	567.44	11.29	11.29	0.00
4,282.00	81.50	229.81	4,044.46	-535.09	-481.27	590.45	22.86	22.84	0.78
4,313.00	85.00	230.56	4,048.11	-554.80	-504.92	612.93	11.54	11.29	2.42
4,345.00	85.56	229.68	4,050.74	-575.25	-529.39	636.25	3.25	1.75	-2.75 6.05
4,377.00 4,408.00	85.19 85.25	227.68 229.43	4,053.32 4,055.90	-596.31 -616.75	-553.34 -576.50	660.10 683.26	6.34 5.63	-1.16 0.19	-6.25 5.65
			•						
4,440.00	85.63	229.56	4,058.45	-637.47	-600.75	706.81	1.25	1.19	0.41
4,452.00	85.81	229.06	4,059.34	-645.27	-609.82	715.68	4.42	1.50 1.04	-4.17 0.60
4,537.00 4,542.00	86.69 86.38	229.65 229.56	4,064.90 4,065.21	-700.52 -703.75	-674.18 -677.98	778.45 782.13	1.25 6.46	-6.20	0.69 -1.80
4,575.00	87.75	228.93	4,066.90	-705.75 - <b>72</b> 5.2 <b>7</b>	-702.95	806.56	4.57	4.15	-1.91
-									
4,607.00 4,638.00	89.13 90.13	229.15 228.43	4,067.77 4,067.97	-746.24 -766.66	-727.10 -750.42	830.36 853.50	4.37 3.97	4.31 3.23	0.69 <b>-</b> 2.32
4,670.00	90.13	228.93	4,067.70	-760.00 -787.79	-750.42 -774.45	877.44	2.64	2.12	-2.32 1.56
4,702.00	90.94	228.31	4,067.22	-808.94	-798.46	901.39	1.98	0.41	-1.94
4,733.00	90.63	228.68	4,066.79	-829.48	-821.68	924.65	1.56	-1.00	1.19
4,765.00	91.19	228.68	4,066.28	-850.61	-845.71	948.58	1.75	1.75	0.00
4,796.00	92.88	228.56	4,065.18	-871.08	-868.95	971.77	5.47	5.45	-0.39
4,828.00	93.50	228.68	4.063.40	-892.20	-892.92	995.69	1.97	1.94	0.37
4,860.00	94.00	228.18	4,061.31	-913.39	-916.81	1,019.67	2.21	1.56	-1.56
4,892.00	94.19	228.81	4,059.02	-934.54	-940.72	1,043.61	2.05	0.59	1.97
4,923.00	94.75	228.68	4,056.61	-954.92	-963.95	1,066.71	1.85	1.81	-0.42
4,955.00	95.13	229.06	4,053.85	-975.89	-987.96	1,090.48	1.68	1.19	1.19
4,986.00	94.81	228.93	4,051.17	-996.16	-1,011.27	1,113.47	1.11	-1.03	-0.42
5,018.00	95.25	229.18	4,048.36	-1,017.05	-1,035.35	1,137.18	1.58	1.37	0.78
5,049.00	94.44	228.18	4,045.74	-1,037.44	-1,058.55	1,160.28	4.14	-2.61	-3.23
5,081.00	92.31	227.31	4,043.86	-1,058.92	-1,082.19	1,184.52	7.19	-6.66	-2.72
5,113.00	90.94	225.93	4,042.95	-1,080.89	-1,105.44	1,209.19	6.08	-4.28	-4.31
5,144.00	89.50	225.31	4,042.83	-1,102.57	-1,127.59	1,233.44	5.06	-4.65	-2.00
5,187.00	89.06	224.31	4,043.37	-1,133.07	-1,157.89	1,267.46	2.54	-1.02	-2.33
5,207.00	89.00	224.43	4,043.71	-1,147.37	-1,171.88	1,283.37	0.67	-0.30	0.60
5,239.00	90.88	223.93	4,043.74	-1,170.32	-1,194.18	1,308.90	6.08	5.87	-1.56



### Weatherford International Ltd.

Survey Report



Company: Project: Anadarko Petroluem Corp CARBON CO, UTAH

Site: Well: BLACKHAWK A-5H BLACKHAWK A-5H

Wellbore: Design: ML Survey Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method: Database:

Well BLACKHAWK A-5H SITE @ 6411.01ft

SITE @ 6411.01ft SITE @ 6411.01ft

True

Minimum Curvature

EDM 2003.21 Single User Db

Survey

Measured Depth (ft)	inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,278.00	91.06	224.93	4,043.08	-1,198.16	-1,221.47	1,339.90	2.60	0.46	2.56
5,302.00	90.50	223.68	4,042.76	-1,215.34	-1,238.24	1,359.01	5.71	-2.33	-5.21
5,334.00	90.13	223.93	4,042.58	-1,238.43	-1,260.39	1,384.67	1.40	-1.16	0.78
5,366.00	90.44	224.31	4,042.42	-1,261.40	-1,282.66	1,410.22	1.53	0.97	1.19
5,397.00	91.13	223.93	4,042.00	-1,283.65	-1,304.24	1,434.96	2.54	2.23	-1.23
5,429.00	92.00	223.18	4,041.12	-1,306.84	-1,326.28	1,460.69	3.59	2.72	-2.34
5,461.00	91.75	223.31	4,040.08	-1,330.13	-1,348.20	1,486.52	0.88	-0.78	0.41
5,492.00	92.44	223.06	4,038.94	-1,352.72	-1,369.40	1,511.55	2.37	2.23	-0.81
5,524.00	91.44	222.18	4,037.86	-1,376.25	-1,391.05	1,537.58	4.16	-3.12	-2.75
5,556.00	90.56	222.81	4,037.30	-1,399.85	-1,412.66	1,563.66	3.38	-2.75	1.97
5,587.00	89.88	223.68	4,037.18	-1,422.43	-1,433.90	1,588.69	3.56	-2.19	2.81
5,619.00	89.00	224.81	4,037.49	-1,445.35	-1,456.23	1,614.20	4.48	-2.75	3.53
5,651.00	88.75	224.56	4,038.12	-1,468.10	-1,478.73	1,639.55	1.10	-0.78	-0.78
5,682.00	87.81	225.18	4,039.05	-1,490.06	-1,500.59	1,664.04	3.63	-3.03	2.00
5,714.00	86.75	224.93	4,040.57	-1,512.64	-1,523.21	1,689.24	3.40	-3.31	-0.78
5,745.00	86.63	225.68	4,042.36	-1,534.40	-1,545.21	1,713.56	2.45	-0.39	2.42
5,777.00	89.13	229.15	4,043.55	-1,556.04	-1,568.75	1,737.94	13.36	7.81	10.84
5,808.00	86.69	226.68	4,044.68	-1,576.80	-1,591.74	1,761.38	11.20	-7.87	-7.97
5,840.00	87.94	226.93	4,046.18	-1,598.67	-1,615.04	1,785.97	3.98	3.91	0.78
5,872.00	88.63	226.56	4,047.13	-1,620.59	-1,638.34	1,810.60	2.45	2.16	-1.16
5,903.00	89.63	226.93	4,047.60	-1,641.83	-1,660.91	1,834.46	3.44	3.23	1.19
5,935.00	90.25	226.68	4,047.64	-1,663.74	-1,684.24	1,859.08	2.09	1.94	-0.78
5,967.00	90.94	227.56	4,047.31	-1,685.51	-1,707.69	1,883.59	3.49	2.16	2.75
5,999.00	92.13	228.81	4,046.45	-1,706.84	-1,731.53	1,907.70	5.39	3.72	3.91
6,030.00	92.44	227.43	4,045.21	-1,727.51	-1,754.59	1,931.06	4.56	1.00	~4.45
6,062.00	92.94	227.43	4,043.71	-1,749.14	-1,778.13	1,955.43	1.56	1.56	0.00
6,093.00	94.06	227.18	4,041.82	-1,770.12	-1,800.87	1,979.06	3.70	3.61	-0.81
6,125.00	94.06	227.18	4,039.55	-1,791.81	-1,824.28	2,003.48	0.00	0.00	0.00
6,156.00	96.69	227.81	4,036.65	-1,812.67	-1,847.03	2,026.99	8.72	8.48	2.03
6,188.00 6,238.00 <b>LAST SVY</b>	95.88 95.88	228.18 228.18	4,033.15 4,028.02	-1,833.95 -1,867.12	-1,870.67 -1,907.74	2,051.03 2,088.52	2.78 0.00	-2.53 0.00	1.16 0.00

Snive Autorations	•
-------------------	---

Measured	Vertical	Local Coor		
Depth	Depth	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	Comment
6.238.00	4.028.02	-1.867.12	-1.907.74	EXT. TD

···		
Checked By:	Approved By:	Date:



### **UNITED STATES** DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

FORM APPROVED
OMB No. 1004-013
Expires: July 31, 201

	15/100. 041, 51, 20	10
. Lease Serial No. JTU 71675		

6. If Indian, Allottee or Tribe Name

N/A

### **SUNDRY NOTICES AND REPORTS ON WELLS** Do not use this form for proposals to drill or to re-enter an

abandoned well.	Use Form 3160-3 (A	PD) for suc	h proposa	ls.		·	
SUBMI	T IN TRIPLICATE – Other	r instructions on	page 2.		7. If Unit of CA/Agreement, Name and/or No.		
1. Type of Well							
Oil Well Gas W	Vell ✓ Other CE	зм			8. Well Name and No. BLACKHAWK A-5H		
2. Name of Operator ANADARKO PETROLEUM CORPORATION					9. API Well No. 43-007-31402		
3a. Address 3b. Phone No. (include area code)					10. Field and Pool or Ex	xploratory Area	
PO BOX 173779 DENVER CO 80217-3779 720-929-6832					HELPER/FERRON A	1	
4. Location of Well (Footage, Sec., T., 1142' FNL, 263' FEL LAT: 39.685470 LONG: 4NENE SEC 20 T13S-R10E	)			11. Country or Parish, S CARBON, UT	State		
12. CHEC	K THE APPROPRIATE BO	OX(ES) TO INDI	CATE NATUR	E OF NOTIC	E, REPORT OR OTHE	R DATA	
TYPE OF SUBMISSION			TY	PE OF ACT	ION		
[7] Nation of Lateral	Acidize	Deeper Deeper	n	Prod	uction (Start/Resume)	Water Shut-Off	
✓ Notice of Intent	Alter Casing		re Treat		mation	Well Integrity	
	Casing Repair		onstruction	Reco	mplete .	Other	
Subsequent Report	Change Plans	<del></del>	nd Abandon		orarily Abandon		
Final Abandonment Notice	Convert to Injection	Plug B			r Disposal		
Oil, Oil, Oil, Oil, Oil, Oil, Oil, Oil,	JEST DENIED ah Division of Gas and Mining  113 109	ion results in a mube filed only after appropriately Abandon.  1. Thank you.	altiple completi all requirement oned for 2010	on or recomp	copy sent to Date: 11 ' Initials: RE	a Form 3160-4 must be filed once	
14. I hereby certify that the foregoing is t CINDY B. VUE	au 1 ypeu)	Title REGUL		ALYSTI			
00	1 1						
Signature Date				009			
	THIS SPACE	FOR FEDER	RAL OR ST	TATE OF	ICE USE		
Approved by					T		
			T:21 -		1		
Conditions of approval, if any, are attached that the applicant holds legal or equitable tentitle the applicant to conduct operations	itle to those rights in the subje				<u>U</u>	ate	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false,

fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	G	5.LEASE DESIGNATION AND SERIAL NUMBER: FEE
SUND	I WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
	sals to drill new wells, significantly deepen exis igged wells, or to drill horizontal laterals. Use A		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: BLACKHAWK A-5H
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		<b>9. API NUMBER:</b> 43007314020000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	PHONE N treet, Suite 600, Denver, CO, 80217 3779	UMBER: 307-752-1169 Ext	9. FIELD and POOL or WILDCAT: HELPER
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1142 FNL 0263 FEL			COUNTY: CARBON
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NENE Section: 20	IP, RANGE, MERIDIAN: Township: 13.0S Range: 10.0E Meridian: S		STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
Anadarko respectfully	CHANGE TO PREVIOUS PLANS  CHANGE WELL STATUS  DEEPEN  OPERATOR CHANGE  PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION  TUBING REPAIR  WATER SHUTOFF	e following well location. k you.	CASING REPAIR CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK RECOMPLETE DIFFERENT FORMATION TEMPORARY ABANDON WATER DISPOSAL APD EXTENSION OTHER: Columes, etc.  Approved by the Utah Division of Oil, Gas and Mining  The state of the state
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE	
Emily Carrender	720 929-6282	Operations Specialist I	
SIGNATURE N/A		DATE 10/18/2010	



### The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

### **Sundry Conditions of Approval Well Number 43007314020000**

- 1. Notify the Division at least 24 hours prior to conducting abandonment operations. Please call Dan Jarvis at 801-538-5338.
  - 2. Existing Plug #1 @ 4100' should be tagged.
- 3. Amend Plug #2: For the proposed 200' of cement coverage, 40 sx of cement would be required. Note: Procedure states 5 ½" casing in hole, records show 7" casing in hole.
  - 4. For Plugs #3 and #4, a minimum of 20 sx is required for each of the proposed 100' plugs.
- 5. All balanced plugs shall be tagged to ensure they remain at the depth specified by the proposal.
  - 6. All annuli shall be cemented from a minimum depth of 100' to the surface.
  - 7. Surface reclamation shall be done in accordance with R649-3-34 Well Site Restoration.
- 8. All requirements in the Oil and Gas Conservation General Rule R649-3-24 shall apply.
- 9. If there are any changes to the plugging procedure or the wellbore configuration, notify Dustin Doucet at 801-538-5281 (ofc) or 801-733-0983 (home) prior to continuing with the procedure.
  - 10. All other requirements for notice and reporting in the Oil and Gas Conservation General Rules shall apply.

Approved by the Utah Division of Oil, Gas and Mining

Date: November 76, 2010

Bv:

4490

API Well No: 43-007-31402-00-00

Permit No:

Well Name/No: BLACKHAWK A-5H

Company Name: ANADARKO PETROLEUM CORP

Location: Sec: 20 T: 13S R: 10E Spot: NENE

Coordinates: X: 515751 Y: 4392602

Field Name: HELPER County Name: CARBON

String	Information
--------	-------------

String	Bottom (ft sub)	Diameter (inches)	Weight (lb/ft)	Length (ft)
HOL1	530	13.5		
SURF	530	10.375	32.7	530
HOL2	4490	8.75		

Cement from 530 ft. to surface 1001 = 201X regd.

Surface: 10.375 in. @ 530 ft. 4 Hole: 13.5 in. @ 530 ft.

580

Pug# 3 1001/(1,17) (4,524)= 2051 regd.

### **Cement Information**

String	BOC (ft sub)	TOC (ft sub)	Class	Sacks
PROD	4490	0	G	980
SURF	530	0	G	350

2154

(2297)(1.15)(4.524) = 114 \*\*Propose 2001 (procedure states 5/2 csg. - records Show 7 "csg)
2001/(1.15)(4.524) = 395x reqd.

**Perforation Information** 

u Hole: 8.75 in. @ 4490 ft.

Cement from 4490 ft. to surface
Production: 7 in. @ 4490 ft. X Tag existing Plug #

**Formation Information** Depth

Formation MNCS **FRSD** 3873

**Utah Division of** Oil, Gas and Mining

Approved by the

Hole: Unknown

TD:

6239 TVD:

4024 PBTD:

4100

## ANADARKO PETROLEUM CORPORATION BLACKHAWK A-5H

### NE NE 20 13S 10E 1,142' FNL 263' FEL

**LAT:** 39.68550 **LONG:** -110.81730

## 10/13/2010

AREA: ROUTE: Spud: 08/14/2008 WINS No.: 68173 AFE/WO#: tba API#: 4300731402

<u>GL:</u> 6397 <u>KB:</u> 6423 <u>MTD:</u> 6239 <u>TVD:</u> 4050 <u>LOG MD:</u> <u>PBMD:</u> 4100 <u>PBTVD:</u> 2190

**Directions:** 

TUBULARS	Tool Type	<u>Joints</u>	<u>Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Thread</u>	Condition	Top D	Bottom D
SURFACE CASING									
	Casing	12	10.75	32.75	H-40	STC	NEW	-3	485
	Float Collar	1	10.75		K-55			485	487
	Casing	1	10.75	32.75	H-40	STC	NEW	487	528
	Casing Shoe	1	10.75		K-55			528	530
INTERMEDIATE CASING									
	Casing	1	7.00	23.00	J-55	STC	NEW	-5	25
	Casing Hanger	1	7.00		J-55			25	31
	Casing	49	7.00	23.00	J-55	LTC	NEW	31	2152
	Stage Collar	1	7.00		J-55			2152	2155
	Casing	7	7.00	23.00	J-55	LTC	NEW	2155	2456
	Casing	46	7.00	23.00	J-55	LTC	NEW	2456	4444
	Casing Float Collar	1	7.00		J-55			4444	4445
	Casing	1	7.00	23.00	J-55	LTC	NEW	4445	4488
	Casing Float Shoe	1	7.00		J-55			4488	4490
CEMENT TYPE	<u>Stage</u>	<u>Sacks</u>	Cement	Type_		Top D	Btm D cbl	est Comn	nents_
SURFACE CASING									
CEMENT									
	PRIM CMT 1ST STAGE	350	LEAD	TAIL		0	530 No	FULL	22.00
INTERMEDIATE CASING									
CEMENT									
	PRIM CMT 1ST STAGE	550	TAIL	STAGE 2		3110	4490 No		
	PRIM CMT 2ND STAGE	430	LEAD	STAGE 1		0	2154 No		
INTERMEDIATE CASING									
CEMENT									
	ABANDONMENT PLUG	50	LEAD	NEAT		4100	4300 No	FULL	0.00
PERFORATIONS									
Formation Zone	Top B	m spf	Shots	Date	Reason		Comments		Producing

### Comments:

### **Proposed Completion Procedure**

- 1.. MIRU workover rig.
- 2.. Circulate hole with produced brine water.
- 3.. Abandonment plug already in wellbore 4100'-4300'.
- 4.. MIRU cementing services.
- 5.. Spot 22 sks Class G 1.15 yeild cement from 2054'-2254', across DV tool at 2154', 200' fill in 5.5" casing.
- 6.. Wait on cement.
- 7.. Surface casing shoe: PU to surface casing shoe. Pump 11.5 sks Class G 1.15 yield cement for 100' plug from 480'-580'. WOC.
- 8.. Surface plug: PU to 100' below surface. Pump 11.5 sks Class G 1.15 yield cement from 100' to surface.
- 9.. Cut off wellhead 3' below final ground grade.
- 10. Install P&A marker with well name, footages from section lines, API#, date of plugging and GPS coordinates to the 5th decimal.
- 11.. File subsequent P&A sundry with as plugged wellbore diagrams.
- 12.. Reclaim location.

### **Proposed Perforation Intervals**

Тор	Btm	Zone	Comments
			DECEMED October 18, 2010

## ANADARKO PETROLEUM CORPORATION BLACKHAWK A-5H

NE NE 20 13S 10E 1,142' FNL 263' FEL LAT: 39.68550 LONG: -110.81730

CARBON,UTAH 10/13/2010

AREA: ROUTE: Spud: 08/14/2008 WINS No.: 68173 AFE/WO#: tba API#: 4300731402

<u>GL: 6397 KB: 6423 MTD: 6239 TVD: 4050 LOG MD: PBMD: 4100 PBTVD: 2190</u>

**Directions:** 

Engineer: JAMIE TRINIE 720-878-2008 Foreman: KIRT RASMUSSEN
Lead Pumper: Authorized By: CHARLEY DEIN



ANADARKO PETROLEUM CORPORATION Denver Office 1099 18th Street Denver, CO 80202

Date: 10/13/2010

Authorization PERMANENT

BLACKHAWK A-5H

NE NE 20 13S 10E 1,142' FNL 263' FEL

LAT: 39.68550 LONG: -110.81730

CARBON,UTAH

AREA:		ROUTE:	Spud: 08/14/20	008 WINS No.: 6817	73 AF	FE/WO#: tba	API#: 4300731402
GL: 6397	KB: 6423	MTD: 6239	TVD: 4050	LOG MD:	PBMD: 4	100 PBTVD:	<u>2190</u>
Approved:				Date:		_ Area Enginee	er
Approved:				Date:		Engineering I	Manager
Approved.						- Luguieeilig i	manager

	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCE		FORM 9				
	DIVISION OF OIL, GAS, AND MINING						
SUNDF	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:						
	sals to drill new wells, significantly deepen igged wells, or to drill horizontal laterals. U		7.UNIT or CA AGREEMENT NAME:				
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: BLACKHAWK A-5H				
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43007314020000				
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	PHO treet, Suite 600, Denver, CO, 80217 3779	NE NUMBER: 307-752-1169 Ext	9. FIELD and POOL or WILDCAT: HELPER				
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1142 FNL 0263 FEL			COUNTY: CARBON				
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NENE Section: 20	(P, RANGE, MERIDIAN: Township: 13.0S Range: 10.0E Meridian: S	5	STATE: UTAH				
11. CHE	CK APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPORT,	OR OTHER DATA				
TYPE OF SUBMISSION		TYPE OF ACTION					
_	☐ ACIDIZE	☐ ALTER CASING	CASING REPAIR				
NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME				
11/29/2010	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE				
SUBSEQUENT REPORT	DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION				
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK				
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION				
SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON				
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL				
☐ DRILLING REPORT	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION				
Report Date:	☐ WILDCAT WELL DETERMINATION	<b>✓</b> OTHER	OTHER: Extension Request				
Anadarko is respectf the following well loc	MPLETED OPERATIONS. Clearly show all perfully requesting a 3 week exteration. The pad is on the side of the material backs to move all the material backs to close the pit. Thank you	nsion for closing the pit on of a hill the contractor says ack to original contour and I.	S Approved by the				
NAME (DI SACE DOSSIE)							
NAME (PLEASE PRINT) Emily Carrender	<b>PHONE NUMBER</b> 720 929-6282	TITLE Operations Specialist I					
SIGNATURE N/A		DATE 11/23/2010					

	STATE OF UTAH		FORM 9			
	5.LEASE DESIGNATION AND SERIAL NUMBER: FEE					
SUNDF	RY NOTICES AND REPORTS (	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
	sals to drill new wells, significantly deepen e igged wells, or to drill horizontal laterals. Us		7.UNIT or CA AGREEMENT NAME:			
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: BLACKHAWK A-5H					
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43007314020000			
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	PHONI treet, Suite 600, Denver, CO, 80217 3779	E NUMBER: 307-752-1169 Ext	9. FIELD and POOL or WILDCAT: HELPER			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1142 FNL 0263 FEL			COUNTY: CARBON			
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NENE Section: 20	P, RANGE, MERIDIAN: Township: 13.0S Range: 10.0E Meridian: S		STATE: UTAH			
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT,	OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
	ACIDIZE	ALTER CASING	CASING REPAIR			
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME			
✓ SUBSEQUENT REPORT	☐ CHANGE WELL STATUS ☐ DEEPEN	☐ COMMINGLE PRODUCING FORMATIONS ☐ FRACTURE TREAT	☐ CONVERT WELL TYPE ☐ NEW CONSTRUCTION			
Date of Work Completion: 12/8/2010	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK			
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION			
Date of Spud:	☐ REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON			
	☐ TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL			
DRILLING REPORT Report Date:	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION			
	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:			
The following well loo	MPLETED OPERATIONS. Clearly show all pertication has been Plugged and Alban Summary Report and Cemer	oandoned on 12/08/2010. Inting Report. Thank you. L Oil				
NAME (PLEASE PRINT) Emily Carrender	<b>PHONE NUMBER</b> 720 929-6282	TITLE Operations Specialist I				
SIGNATURE N/A		DATE 12/15/2010				

								Reports:
Well: BLACKHA				T				
Project: UTAH-C				Site: BLA	CKHAW	K A-5H		
Event: ABANDO								
Active Datum: RI Level)	KB @6,4	Site: BLACKHAWK A-5H						
<b>1000</b>		រំបស់ និ		Phase	Care	Sab Code	- 60	Operation A
11/19/2010	DWC:					_	_	
KIRT RASMUS	7:00	- 18:00	11.00	ABAND	30	A	S	RESTART, RESPACE RODS, RIG DOWN LOAD EQUIP, CLEAN UP LOCATION, PRE TRIP INEP, MOVE RIG & EQUIP FROM NORTH BENCH FED. # 21-28, TO HELPER BLACKHAWK # A-5H, (21.5 MI), SET EQUIP, STAND UP RIG, CHECK WELL FOR PRESS, REMOVE 11 WELLHEAD, NIPPLE UP ADAPTOR FLANGE & BOP, RIG DOWN FLOOR, PREP TO WORK ON WELL, 6:00
11/22/2010	DWC:	\$5,430.00		<u>CWC:</u> \$12,	360.00			
KIRT RASMUS	7:00	- 15:00	8.00	ABAND	30	А	Р	TALLY & PICK UP 27/8" TBG, NOTCHED PINNED COLLAR ON BTM, RUN 78 JTS TBG, TAG CMT @ 2477", (1623' ABOVE PROJECTED CMT TOP), FILL CSG, PRESS TEST TO 1000#, UNABLE TO PRESS TEST, PUMPING INTO DV TOOL @ 500#, PULL & LAY DOWN 7 JTS 27/8" TBG, PULL 5 STDS TBG, CLOSE
11/23/2010	DWC:	\$17,215.00		<u>CWC:</u> \$29,	575.00			
KIRT RASMUS	5:00		11.00			A	P	2256', RIG UP SANJEL CMT TRUCK, PRESS TEST, EST CIRC, SPOT 200' CMT PLUG @ 2257' IN 7" CSG, PULL 10 STANDS OF TBG, REVERSE CIRC TBG CLEAN, WAIT ON CMT TO SET UP, RIH TAG CMT @ 2025' STACK OUT @ 2045', PULL 9 STANDS OF TBG, POOH LAYING DOWN 53 JTS 27/8" TBG, RIH W/ 9 STD'S TBG, EOT @ 586', RIG UP SANJEL PUMP TRUCK, SPOT 100' CMT PLUG FROM 587', POOH W/ 9 STD'S TBG, CLOSE WELL IN FOR NIGHT, DRAIN UP
11/24/2010	DWC:							
KIRT RASMUS	5:00	- 17:00	12.00			С	Р	TAG CEMENT @ 450', POOH LAYING DOWN 27/8" TBG, RIG UP FLOOR, STRIP OFF BOP & ADAPTOR SPOOL, RIH W/ 3 JTS 27/8" TBG, RIG UP SANJEL CMT TRUCK, SPOT CEMENT PLUG FROM 115' TO SURFACE, POOH LAYING DOWN TBG, TOP OFF CMT PLUG, RIG DOWN RIG & EQUIP, WELL'S PLUGGED.,
11/30/2010	<u>DWC:</u>	\$300.00		<u>CWC:</u> \$43,	785.00			
KIRT RASMUS		-		MAINT	30		Р	•
12/7/2010	DWC:	\$16,209.71		CWC: \$59	994.71			TREGIT WATER DOVVIN SURFACE CASING, RDIVIO
KIRT RASMUS	<u> </u>	-					Р	EQUIP. TO 3,000#. PUMP 2 BBL'S ESTABLISH INJECTION, PUMP 200 SACKS CLASS "G" CEMENT. DISPLACE W/ 3 BBL'S. CLEAN TRUCKS. MAX PSI

Well: BLACKHAWK A-5H				
Project: UTAH-CARBON	CKHAWK A-5H		Rig Name No: NABORS 808/808	
Event: ABANDONMENT	Start Date	e: 11/19/2010	End Date:	Spud Date: 8/14/2008
Active Datum: RKB @6,423.00ft (above Mean Sea Level)		UWI: 0/13/S/10/	E/20/0/NENE/6/PI	M/N/1,142.00/E/0/0/0/0
Date Time Duration State Con 1 (nt)	Place	Gode Sub Code	FM   MD	don 1
12/8/2010 <u>DWC:</u> \$1,400.00 <u>C\</u>	<u>NC:</u> \$61,	,394.71		
KIRT RASMU! -	ABAND	51	P	CHECK AREA FOR GAS. HELD SAFETY MEETING.
				CUT OFF WELLHEAD - WELD ON WELL MARKER
				PLATE. UTAH STATE DOGM HAND WITNESSED
				MARKER. (MARK JONES). COVERED UP MARKER.



## **Pre-Job Safety Meeting - Job Safety Analysis (JSA)**

Customer Name: AMAdarko	Date: _///14 //C	Service Ticket No.: 4/5/26/70
Total People on Location:	Location: 320 /	
How do we signal "STOP WORK"?	The state of the s	er, eyewash station, fire extinguishers, first aid kits)  (A Const.)  (Alcology)
Safety Meeting Discussion: (Topics should i	include brief job scope, PPE, site specific hazards, er	nvironmental issues people's responsibilition
- Keen people	Away From Suite	ac Trechaglings
Wed proper	PPF Alound Count 1	rose for fr shing
Job Safety Analysis:		
Break the job down into steps.	2. Identify the hazards associated with each step.	Develop ways to control the hazards.
Sequence of Basic Job Steps	Potential Hazards	Recommended Controls
Spot Trucks	Forger on Location	Slav Deary
En Ind	His in Sivings	Line of file
1. (1011: 30)	Proserve Technic	Keep Transle Clear
Ling Out	Climbing organizate Pring	3 pour Contact
Attendees: (Print name and sign. If there is not a	enough lines use a second document from this book a	and enter the same Service Ticket No.)
Joseph John John Bong Listy alme	Ta) skelan Th	
May Huston		
Customer Representative: Sanjel Supervisor:	Cody Bushwell	Signature Signature

## Sanjel (USA) Inc. 200, 505 - 2nd Street SW

Calgary, Alberta, T2P 1N8 Telephone: (403) 269-1420



# **SERVICE TICKET** 9151066

This service ticket is not an invoice; pricing

Client Na		راب والعراشق		Well Name				13 30	ibject to revieu	v and change v	rithout .
	<u> </u>		Location						ate Z oé	<u>.</u>	
				Client Repres	20	7/	35	RIOE			
City		Province/State	1=	Job Type	∠≦ ੰ	3 Line	ر ما از استا	er der	Pricin	g Area Sta	te
Deno	£ ,	C c	Postal/Zip Code	Job Type	~ ·	State			AFE/P	Ω#	<u> </u>
District	Sen		nt & Material Ty				<u></u>	05-	ス	05/182	
47	Base Charge to	, -q-ipino	it & material Ty	pe	12	C	ode	Quantity	Unit Pric	e An	ount
	Travel Charge		- 100 CAC		-			Str. C	4300	430	c 0
	Comera	7 0 100 1	levek		<del> </del> -			230	7.5	17.	73 a
	Course d	- <del>13 12 mail =</del> - 73 - 7	<u>s</u>		-			210	3.3	69	
	Comment 1	Colones -			<del> </del>			9.8		574	
	Dayo Acq	<u> </u>			15	197	7	025 C	1015	1015	
	<u>0-1-0</u> 0-2		ement us d		ļ			20 <i>0</i>	27	5400	
	CEC12		·		ļ			94	10.2	953	
								376	1.8	676	
- 15	DF-3							<u> </u>	78	78	
	<u> </u>				·			one	141	14;	00
	लड ३०	9/ <sub>2</sub> + .	Subton	<u> </u>			$\dashv$			20733	31
	<u> </u>	45 015	ront							6220	
	<i>x</i>		Subteral							14514	7/
	Ency remain	Mal Sc	· / charge			<u> </u>		041	50	50	00
	<u>Ubsistence</u>	e 7 men	1355 ec	ach.				4	355	1420	00
					·						
							_				
1		JX 7	00								
	Tha	1 1									
+											
+	· · · · · · · · · · · · · · · · · · ·										
136	+ < -				•						
141	<u> 15 - 69 4</u>	00	3565								
ر رونگاری	36668 Demosser/				· · · · · ·	· .		FIELD	ESTIMATE	15984	7]
27 <i>i</i> Z,	JAN SEN!			Cementing - I	Prim.	P	Cem	enting - Rem.			<del></del>
				Coiled Tubing	· .		Nitro	gen			
				Stimulation			Fract	uring			<del></del>
This are				MPCTU			Other				
inis spac ts	e is reserved for the C	Client Coding Stam	р.	Field	s	ales 1		Sales 2		<del></del>	
							This on t	s signature confirms that I I	nave read and comply with	h the terms and conditions	as noted
							- 1	//			- 1

## Stimulation and Remedial Cementing Service Report

Client Name

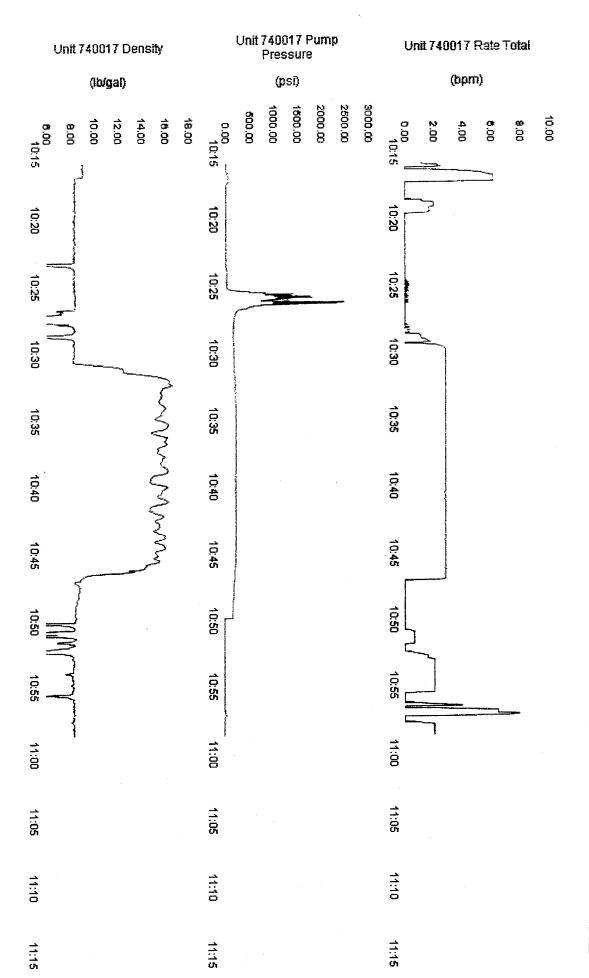


CF	$\mathbf{n}$		_	7-5	~,	CFT
<b>~</b>	K V	"	-			

22	4	57.8	. 7
	#	200	

Job Date

. "-"		<u>. 1 </u>													<del></del>	
Client Re	epresent	ative		- 12 2 4 6 to	. It is ear		Location	 (قار مجر السار السار	الراء ا	·	1, 1	Job Typ	ю <u>-</u> 7.	in c		
Well							1				ių.		<u></u>	48 C	<del>. / /</del>	
Des	cription	1	Size	Weight	Grade	Max. Press			red Depth (Ti		Capacity		Pack	ers and	Workover Too	ols
ıbing	<del></del>		(in)	(lb/ft)		(psi)	Sta	art (ft)	Enc	d (ft)	(bbls)			ре		TMD (ft)
miii	<u> </u>								_			Produc				
-			-	2 . 12 ar				777			<del> </del>	Retriev				
asing	<u> </u>			7 7 7	ļ			·	534	`.		Cemen	t Reta	iner		
				ļ	ļ							Bridge	Plug		·	
erfora	ations/	он										Selecti	ve Inje	ction	Packer	
		_							<u> </u>			<u>L</u>				
				ļ	<u> </u>											
orma	tion Da	ata:	<del></del>			<del></del>			T							
	N.	ame		İ	Type		Well Ty	pe	Temp (°F)	Į P	ressure (psi)	Heig Gross	nt (ft) Ne		Permeability (mD)	Porosity (%)
									723				1	<del>` -</del>	()	(70)
Fluid a	ınd Cei	ment Da	ıta:			74			<u>'                                     </u>							1
libore	Fluid:	Туре:		Den	sity: (lb/gal)	)				Temp: (*F	) Water:		Bulk:		Slurry:	
Saci		olume	Density		Description	n	% - A	Additive	T	% - Additi		% - A	dditive		% - A	dditive
		bbls)	(Ib/gal)	H 20	<u> </u>						+	70 - 7	duitive		76 - A	adinse
<u>Zo</u> (		0 1	15.8	0-7-1			0.5%	Je 11 200		5 6 2.8						
2 2 4			12.5	1			- U13 /h	1 25 74	- 1	5 ( 2.1	۷.					
				-								·				
									- 1					- 1		
	ompat ation:	_	esting*:	(%)	HCI Equi	valent)			Compatib	ility Test	s:					
d Titr bility:	ation:	_	Pa	ess: 🗅	Fa	il: 🗆	N/A		Mesh Size	:			me at I			mi
d Titr pility: Con	ation: troi (Li	ive Acie	Pa d): Pa	ess: 🗆	Fa Fa	il: 0	N/A N/A	o 1	Mesh Size Live Acid:	:	F	Pass:	me at I	Fail:	0	N/A
l Titr bility: Con	ation: troi (Li	_	Pa d): Pa : Liv	ess: 🗆 ess: 🗀 ve:	Fa Fa mi	il: 0 il: 0 n.		o 1	Mesh Size	:	F		me at I			
d Titr bility: Con ilsior	ation: troi (Li n Brea	ive Acid	Pa d): Pa : Li	ess: 🗆	Fa Fa mi	il: 0 il: 0 n.		o 1	Mesh Size Live Acid:	:	F	Pass:	me at I	Fail:	0	N/A
d Titro bility: Con- ulsion	ation: trol (Li Brea Witne:	ive Acid	Pa d): Pa : Liv Sp	ess:	Fa Fa mi	il: 0 il: 0 n.			Mesh Size Live Acid:	: d:	F	Pass:	me at I	Fail:	0	N/A
Titro Dility: Con Ulsion Sting	ation: trol (Li n Brea Witnes	ive Acid k Time: ssed by Repres	Pa d): Pa : Li	ess:	Fa Fa mi	il: 0 il: 0 n.			Mesh Size Live Acid: Spent Acid	: d:	F	Pass:	me at I	Fail:	0	N/A
Titroility: Con Ilsior Con Con	ation: trol (Li n Brea Witnes npany ent Rep	ive Acid k Time: ssed by Repres	Pad): Pad : Lin Sp y: sentativ	ess:   ve:  pent:  e)	Fa Fa mii mii	il:	N/A		Mesh Size Live Acid: Spent Acid Signature:	: d:	F	Pass:	me at I	Fail:	0	N/A
Titra con dision	ation: trol (Li n Brea Witnes	ive Acid k Time: ssed by Repres	Pad): Pad: Liv Spy: Sentativ	ess:   ve:  pent:  e)	Fa Fa mi	il:	N/A Total Volume	Injected Formatic	Mesh Size Live Acid: Spent Acid Signature:	: d:	F	Pass:		Fail:	0	N/A
Titra ility: Con Ision ting Con	ation: trol (Lin Bread Witness spany ent Rep	ive Acid k Time: ssed by Represort:	Pad): Pad: Liv Spy: Sentativ	ess:   ve:  pent:  psi)	Fa Fa mi mi mi	il:	N/A	S	Mesh Size Live Acid: Spent Acid Signature:	d:	F	Pass:   Pass:   Rema	rks	Fail: Fail:	0	N/A
Titraility: Conting Isior Conteatment	trol (Lin Breath Witness pany ent Rep	ive Acid k Time: ssed by Represort:	Pad): Pad: Liv Spy: Sentativ	ess:   ve:  pent:  psi)	Fa Fa mi mi mi	il:	N/A Total Volume	Injected Formatic	Mesh Size Live Acid: Spent Acid Signature:	d:	F F ation - Tir	Pass:  Pass:  Pass:  Rema	rks	Fail: Fail:	0	N/A
Titralility: Con Isior Con eatment	witnes ation:  trol (Li n Breal	ive Acid k Time: ssed by Represort:	Pad): Pad: Liv Spy: Sentativ	ess:   ve:  pent:  psi)	Fa Fa mi mi mi	il:	N/A Total Volume	Injected Formatic	Mesh Size Live Acid: Spent Acid: Signature:  in Arrive Safet	d:	ation - Tir	Pass:  Pass:  Rema	rks	Fail: Fail:	0	N/A
Titr. illity: Con Isior ting Con eatm	witness Time	ive Acid k Time: ssed by Repres port: Tubu	Pad): Pad): Pad): Liv Spy: sentativ	ess:   ve:  pent:  psi)	Fa Fa mii mii Rate (bbls/min)	il:  il:  il:  il:  il:  il:  il:  il:	Total Volume (bbls)	Injected Formatic (bbls)	Mesh Size Live Acid: Spent Acid: Signature:  in Arrive Safet Press	e on Loc y Meetin	ation - Tir	Pass:   Pass:   Rema	rks	Fail: Fail:	0	N/A
Titr. ility: Con Isior  ting Con eatm t	witness witness witness pany ent Rep	ssed by Represort:	Pad): Pad): Pad): Lin Sp	ess:   ve:  pent:  psi)	Fa Fa min min Rate (bbls/min)	il:  III:  I	Total Volume (bbls)	Injected Formatic (bbls)	Mesh Size Live Acid: Spent Acid: Signature:  Arrive Safet Press	e on Loc y Meetin y cons	ation - Tir g 250	Rema me Reque	rks sted:	Fail:	0	N/A
Tith: ility: Con Isior  ting Con eatm t	witness witness mpany ent Rep Time	ssed by Represort:	Pad): Pad: Lin Spy: sentativ	ess:   ve:  pent:  psi)	Fair Fair Fair Fair Fair Fair Fair Fair	il:  il:  il:  il:  il:  il:  il:  il:	Total Volume (bbls)	Injected Formatic (bbls)	Mesh Size Live Acid: Spent Acid Signature:  Arrive Safet Press	e on Loc y Meetin sure Test	ation - Tir 9 250 7 + s	Rema me Reque	rks sted:	Fail:	0	N/A
Tith: ility: Con Isior  ting Con eatm t	witness witness witness pany ent Rep	ssed by Represort:	Pad): Pad: Lin Spy: sentativ	ess:   ve:  pent:  psi)	Fa Fa min min Rate (bbls/min)	il:  III:  I	Total Volume (bbls)	Injected Formatic (bbls)	Mesh Size Live Acid: Spent Acid Signature:  Arrive Safet Press	e on Loc y Meetin y cons	ation - Tir 9 250 7 + s	Rema me Reque	rks sted:	Fail:	0	N/A
Tith: ility: Con Isior  ting Con eatm t	witness witness mpany ent Rep Time	ssed by Represort:	Pad): Pad: Lin Spy: sentativ	ess:   ve:  pent:  psi)	Fair Fair Fair Fair Fair Fair Fair Fair	il:  il:  il:  il:  il:  il:  il:  il:	Total Volume (bbls)	Injected Formatic (bbls)	Mesh Size Live Acid: Spent Acid Signature: Arrive Safet Press	e on Loc y Meetin y refre y refre y poor	ation - Tir 9 250 7 + s	Pass:   Pass:   Rema  me Reque	rks sted:	Fail:		N/A
Titro	witness witness witness pany ent Rep Time	ssed by Represort:	Pad): Pad): Pad): Lin Spy: Sentativ	ess:   ve:  pent:  psi)	Fair Fair Fair Fair Fair Fair Fair Fair	il:  il:  il:  il:  il:  il:  il:  il:	Total Volume (bbls)	Injected Formatic (bbls)	Mesh Size Live Acid: Spent Acid Signature: Arrive Safet Press	e on Loc y Meetin sure Test	ation - Tir 9 250 7 + s	Pass:   Pass:   Rema  me Reque	rks sted:	Fail:	0	N/A
Titricular control of the control of	witness witness witness pany ent Rep Time	ssed by Represort: Tubu	Pad): Pad): Pad): Lin Spy: sentativ	ess:   ve:  pent:  psi)	Fair Fair Fair Fair Fair Fair Fair Fair	il:  II:  In.  Stage Volume (bbls)	Total Volume (bbls)	Injected Formatic (bbls)	Mesh Size Live Acid: Spent Acid Signature:  Arrive Safet Press SAM	e on Loc y Meetin y refre y refre y poor	ation - Tir 9 250 7 + s	Pass:   Pass:   Rema  me Reque	rks sted:	Fail:	Finish:	N/A
Titricial in the control of the cont	witness witness witness mpany ent Rep Time	ssed by Represort:	Pad): Pad): Pad): Lin Spy: sentativ	ess:   ve:  pent:  psi)	Fair Fair Fair Fair Fair Fair Fair Fair	il:  il:  il:  il:  il:  il:  il:  il:	Total Volume (bbls)	S S Injected Formatic (bbls)	Mesh Size Live Acid: Spent Acid Signature: Arrive Safet Press SAM	e on Loc y Meetin y refre y refre y poor	ation - Tir 9 250 7 + s	Pass:   Pass:   Rema  me Reque	rks sted:	Fail: Fail:	Finish:	N/A
Titriility: Con Isior  ting Con eatm t  /// /// /// /// /// /// /// /// //	witness witnes	ssed by Represort: Tubu 22 23 230	Pad): Pad): Pad): Lin Spy: Sentativ	ess:   ve:  pent:  psi)  Annular	Fair Fair Fair Fair Fair Fair Fair Fair	il: On.  n.  Stage Volume (bbls)	Total Volume (bbls)	Injected Formatic (bbls)	Mesh Size Live Acid: Spent Acid: Signature:  Arrive Safet Press SAM	e on Loc y Meetin sure Test y coice y A Si	ation - Tir 9 250 7 + s	Pass:   Pass:   Rema  me Reque	rks sted:	Fail: Fail:  Bin #	Finish:	N/A
Titra Consistency Constant of	witness pany ent Rep	ssed by Represort: Tubu	Pad): Pad): Pad): Lin Spy: Sentativ	ess:  ve:  pent:  psi)  Annular	Fai Fai min min Rate (bbls/min)	il:  III:  In. In. Stage Volume (bbls)	Total Volume (bbls)	Injected Formatic (bbls)	Mesh Size Live Acid: Spent Acid: Signature:  In On Arrive Safet Press SAM (	e on Loc y Meetin sure Test	ation - Tir 9 250 7 + s	Pass:   Pass:   Rema  me Reque	rks sted:	Fail: Fail:  Bin #	Finish:	N/A C
I Titro	witness witness mpany ent Rep Time  22 31 31 32 ee  23	ssed by Represort: Tubu 22 23 230	Pad): Pad): Pad): Lin Spy: Sentativ	ess:  ve:  pent:  psi)  Annular	Fair Fair Fair Fair Fair Fair Fair Fair	il:  III:  In.  Stage Volume (bbls)	Total Volume (bbls)	Injected Formatic (bbls)	Mesh Size Live Acid: Spent Acid: Signature:  In Orn  Arrive Safet Press  SAM	e on Loc y Meetin sure Test	ation - Tir 9 250 7 + s	Pass:   Pass:   Rema  me Reque	rks sted:	Fail: Fail:  Bin #	Finish:	N/A C





12/0	Job Date			H2O, 0-1-0 'G'+additives	Comments
Riverto	Service District	Cement Top Off	Job Type	Sec 20 T13S R10E	Location
740(	Unit No.	Blackhawk A-5H	Well Name	9151066	Ticket No. 9151066
Doug Gray	Supervisor	o Kirt Rasmussen	Client Rep	Anadarko	Client



### PRE-JOB SAFETY MEETING - JOB SAFETY ANALYSIS (JSA)

Customer Name:	Date: <u>/ </u>	Service Ticket No.:
Total People on Location:	Location:	C 713 8 8 10 6
Emergency Responce Plan: (muster point, e	emergency procedures, location of emergency shows	
How do we signal "STOP WORK"?	Dr. Chick L. V. Derbei	
Safety Meeting Discussion: (Tonics should in	include brief job scope, PPF, site specific hazards, et	nvironmental issues, neonle's responsibilities)
Johnson - Togott	Love glastes ka ditat hand to	
PPE - Responsible	from glaster kind that hand to	
Stringmis - Bell hole	Brdgarte tooks	
Emmonderment - No Sa	24 <sub>2</sub> - 1	
Rispensity Littles - Dung	My Common B. V. Forger	A. 4 C Rock College
Job Safety Analysis:		
Break the job down into steps.	2. Identify the hazards associated with each step.	3. Develop ways to control the hazards.
Sequence of Basic Job Steps	Potential Hazards	Recommended Controls
Stot Trucks	Collisions	DER Sporters
Fig 10	くの U.s. cen 5 ディルとL Biplagical+Agents	G - G & Flittinaliso,
Fraccion Test	Fresson, 200 minutes	
Processor Trest Promos fluids	Control (Electrical	Krcy prespitations/reco
Kig Out	1 / y s 7Firgus Explésion (s	Fyran Park
	Medianical	
	Pressure	
	Raciation	
	Temperature Extremes	
Attendees: (Print name and sign. If there are no	t enough lines use a second document from this boo	k and enter the same Service Ticket No.)
Ba. Kom PHC		
MATERIAL POTOLOGICA		
REZUMKEL GARRILLE		
william in DERKE THE	Whi	
Customer Representative:	Kant Raganie	
Customer nepresentative:	Print Name	Signature
Sanjel Supervisor:	Print Name	Signature
	Frank Name	oignature

U4027 REV.0, 05/08

HELPER FACILITATION # A-SH A TH ZOSIIBZ NE/NE SEC 20 TWO 135 Pay 108 GL G377' KB G423'

10B ZLOOI 7" 23" Suct - 4490" Tope 450' Guide Sine SZB'-530' Cut They Blu 586 Strugger zoesi Tope 2045. - Stage Coure 2.152'-2155' But Dlug 3ta 2257' Suchart Cut? 2.477' 11-22-2010 Flort Collar 4444'-4445' - Guide Stor 4426' - 4,490' T.D.

#### Sanjel (USA) Inc. 200, 505 - 2nd Street SW Calgary, Alberta, T2P 1N8 Telephone: (403) 269-1420

Sanje Specialized Ladrey Service Company

# 9153669

This service ticket is not an invoice; pricing is subject to review and change without notice

Client Nar	Awadai	Ko Dalat	0.6.43	Well Name	21.	12			,001.10	Job Date	cnange with	out notice
Address	1000000	1 Ste	)			Show	jK_	A-54		/	1/23/10	>
-	1019 18	5412	<u>et</u>	Client Represe	c11			RIO		Service Po	nt <u>Ive/on to</u> State	47
City		Province/State	Destriction of	1		Kirt	Ras	MUSSUR		<b>/</b> ~	a State	T
<u> </u>	NVes-	CO	Postal/Zip Code 80202	Job Type	- 1	State 17		Country		AFE/PO#		
District	Serv		it & Material Ty		12	Code	T	Quantity		it Price	205/181	
47	Base Charge to	Simila	Pump 1	1.14.		107	+		+		Amou	1
V	Travel Charge	Driver	Tuck				$\dashv$	ONE	, ,	700°	1, 1,	
	RIV	$C \rightarrow C$	Blendin			380	+	<u>230                                    </u>	<del>  / ′ _ · · · · · · · · · · · · · · · · · ·</del>	50	11,725	00
	Rick	CENERAL.	DICHOR	<del>5</del>		481	-	89	1-2-2	,30	\$470	00
	13011	EMOUT	Deliviry		10	48H	-	14,1	<del>                                     </del>	, 55	82,404	65
	- JAN	111 100	da Aco	uisition	1/2	197		ONE	7-7	015	\$ 1,015	00
	<u> </u>	bsister	JEC		12	102		_3	\$ 3	35500	\$ 1,065	00
+		06			3	<u>ර</u> ුර	,	<i>8</i> 5	#2	7,25	\$ 2295	00
		FR			1	3160		40	# 10	), 20	\$ 408	<u></u>
		16/2			3	100		160	·	80	\$ 288	ල <u>ු</u>
	<u> </u>	uirolae F-3			14	192		ONE		1800	# 78	8
	<u> </u>	F-3			3	262		ONE		14/00		00
		5051010	4						1.5		114,589	65
V	<i>L</i> ess	30%	Discoun	+			$\top$			! }	10,212	1
47			1 Sulchee		10	193	1	ONE	H.	50,00	10,212	75
							1	<i>O-02</i>	12	,0,	JP 30	00
			<del></del>		<b></b>		+					
		_	Thank Yo				+			-		
			MOUNTO	· ·			_					
				<del></del>								
	DX-QSG	0110					+					
	7	100				······································	-					
	KIRT KASA	10220-1				· <u> </u>	-					
							_					
			Т			<del></del>			<del></del>			
			ļ		1, 1,	:.		FIEL	D EST	MATE	10,262	75
	•		ļ	Cementing	- Prim	. 2	Cem	enting - Rem				
		,		Coiled Tub	ing		Nitro	ogen				
			Į	☐ Stimulation	1		Frac	turing		· · · · · · · · · · · · · · · · · · ·	77.424.74	
			Į.	MPCTU	13.4	П	Othe	r				
	is space is reserved for	the Client Coding	Stamp.	Fleid		Sales 1		Sales 2				
omments							TH	nis signature confirms to the reverse of this do	hat I have re cument.	ad and comply w	th the terms and condition	ns as noted
							x	A	D	-		j
			<del> </del>		RF	CEIVE		December	<del>15, 2</del>	010	U4006	REVO DE/DR



#### SERVICE TICKET

# 9153669

Client Name	Δ.,	l.V	, 7	2.1.	i		Well Name	77.	.1 (		Joh	Date	,		
Client Repre	sentative	1 2 . A	*****	<u> 16110</u>	leuni		Loostina	DIOCK	Shawk 1	1-5H		- 117	23	110	
		Kild	1	50151	MUSS	<b>ラ</b> ン	Location	ec 20	5 T135 F	SIOF	Job	Туре	OLL	1	
Well Data:		Size		Weight	T 1						_				
Descri	ption	(in)	- 1	(lb/ft)	Grade	Max. Press (psi)	Sta	ue Measure rt (ft)	d Depth (TMD) End (ft)	Capacity (bbls)	ļ		rs and V	orkover Tool	
Tubing		2 1/2	2	65				<b>フ</b>	2237		Pro	duction P			TMD (ft)
		ļ.,,									Retr	ievable P	acker		
Casing		7"	- -	23			$ \subset$	>	2237	.0394	Cen	nent Retai	ner		
Perforation		<del> </del>	-								Brid	ge Plug			
Perioratio	ons/OH	<del> </del>				<del></del>					Sele	ctive Inje	ction F	Packer	
		<del> </del>			ļ										
	<u>-</u>		-		ļ	· -· · · · · · · · · · · · · · · · · ·	ļ								
Formation	Data:	<u> </u>													
	Name				Туре		Well Ty	200	Temp,	Pressure		leight (ft)		lormaghitis.	
			$\dashv$		.,,,,,		well ly	pe	(°F)	(psi)	Gross			ermeability (mD)	Porosity (%)
Fluid and (	Cement D	ata:				<u></u> L									
Wellbore Flu				Den	sity: (lb/gal)				Temp: (5	°F) Water:		Bulk:	·····	nı.	
# Sacks	Volume (bbls)				Description	,	% - 4	dditive	% - Addi			¬·	T	Slurry:	
40	8,2	(lb/ga		0:1:					1			6 - Additive		% - Ac	iditive 
		, ,	-	<u> </u>	<u> </u>		15/6	CAK	2%	~ C12				<del></del>	
20	40	16.9	2	011	10 O		19	OCFR	2% Co	1.				· · · · · · · · · · · · · · · · · · ·	
		1,000					<u> </u>	3 CM	166	1612				<del></del>	
													}		
					· · · · · ·							<del></del>			
														····	
	L														
Fluid Comp		_											l		
Acid Titrati Stability:	,				HCI Equi	•			ompatibility Tes						
=				s: 🛄	Fa		N/A		lesh Size:			Time at	ВНТ: _		min.
ron Contro				s: 🛚	Fa		N/A		ive Acid:	F	ass:		Fail:		N/A 🗅
Emulsion E	Break Ti				mi			S	pent Acid:	F	ass:	a	Fail:		N/A 🗆
_			Spe	nt:	mi	n.									
Testing W (Oil Comp	itnesse	d by: Tesenta	tivol	ı				Si	gnature:						
Treatment i		310301110	ilive												
Event Ti	me	Pressu	re (ps	i)	Rate	Stage Volume	Total Volume	injected i							
#		Tubular	An	ınular	(bbis/min)	(bbis)	(bbls)	Formatio (bbls)				emarks			
	<del> -</del>							<u> </u>	Arrive on Lo		ne Re	quested:	0	6.00	
	-					<u> </u>	<del> </del>		Safety Meeti						
				y y	A 1	2.7	1 55	2	Pressure Tes	st					
			_) <i>L</i>	TE	17 CM	9,4,000	# D	AZA.							
					-					<del></del>					
							<u> </u>								
							<del> </del>		CAM C	71.1	, , , ,				
Personnel a	nd Equip	oment:		L	<del></del>	L			SAM Card #:	5/1-1/1	<u> </u>	Start:		Finish:	
Employee	Cod	4 Bu	Shji	cl	200	Virgine.	desert	Colc	vile MeMoti	.,			Bin #	1918	2556
Employee	Jc K	C Pla	XX										Bin #		11000
Unit#	200				74007			146047	14647		7			1/10	1010
Arrive	<u> </u>	)			Cloro	)		06 X	)	-	1				
Depart	15/6	3.1			15/10	7		15100	)						
Service Co	mment	3:			_ ರಾ	<u>6 //</u>	Unipeo	1 A.	Spor C	usfonic	<u></u>	Beau	xst		
Dotolled	roto o r !-	for C- '	17-				,								
Detailed pr	ULUCOIS	ior sanje	IS CO	mpatib	ility tests :	are availal	ole on requ	ıest.						U4	013 REV.0, 05/08

## Stimulation and Cementing Additional Data



SERVICE TICKET # <u>9153669</u>

Treatment Report: Event Stage Volume (bbls) Pressure (psi) Total Volume (bbis) Injected in Formation (bbls) Time Rate Tubular Annular (bbls/min) 0600 3 07/10 3 5 50 50 24.9 10 39,9 100 1,75 449 49 516

Abandonment Plugs Service District Job Date	Client	Anadarko Petroleum	Client Rep	Kirt Rasmussen	Supervisor	Cody Bushnell
Job Type Abandonment Plugs Service District Job Date	Ticket No.	9153669		Blackhawk A-5H	Unit No.	740077
Job Date	Location	Sec20 T13S R10E	Job Type	`	Service District	Diverson Wer
	Comments			ı	TOTAL PROPERTY.	TATACACOLI VI Y
					Job Date	11/23/2010
					*	-

1	Service Campany
75	
200	A Specialized Energy

			* :	15:00	:	e F		:			15.00		:					15:00
				14:55							14:55			:				14:55
				14:50	:						14:50							14:50
				14:45	·	:					14:45							14:45
		•	-	14:40	P	:	ī	· · · · · · · · · · · · · · · · · · ·			14:40							14:40
		:	.·	14:35		*	i	•			14:35							14:35
				14:30			:	. 4		tt	14:30		,					14:30
				14:25				· ·· }			14:25	٠					•	14:25
				14:20		:				The second secon	14:20							14:20
				14:15							14:15							14:15
		1		14:10							14:10		(				ر آ	14:10
		:		14:05				an ang ang ang ang ang ang ang ang ang a	y - top andreada		14:05							14:05
800	00.	00.4	2.00	0.00	2500.00	2000.00	1500.00	1000.00	200.00	0.00	14:00	18.00	16.00	14.00	12.00	10.00	8.00	6.00 14:00
	(L	udq)			N	7		(ieq) 5							(Jeb)	(di)		
letoT	9teA	<b>110</b> 0	O.Þ.Y. Jìr	ıU		du	əjr	7004 Jesen	ፕ iint q	ገ			ĄĮ	SUƏ			T JinU	1



## Pre-Job Safety Meeting - Job Safety Analysis (JSA)

Customer Name: Huadarko	Date: 1/10/10	Service Ticket No.: 2/3
Total People on Location:	Location: Scalo	1134 Plat
(15R Santol	nt, emergency procedures, location of emergency shows	er, eyewash station, fire extinguishers, first aid
How do we signal "STOP WORK"?	pal shout out Hand sign	Medical
Safety Meeting Discussion: (Topics sho	Ild include height the	al access Throat
KNOW YOU K	ald include brief job scope, PPE, site specific hazards, en	nvironmental issues, people's responsibilities)
	way From Sulface Tic	
	- Mound cent Dust 1	
lob Safety Analysis:		
1. Break the job down into steps.	2. Identify the hazards associated with each step.	3. Develop ways to control the hazards.
Sequence of Basic Job Steps	Potential Hazards	Recommended Controls
Spot Trucks	Other Equipment on Location	Slow Down
	Childe Lines and Ric	Use 2 spotters
Ba IN	Dinks Deople	Look Tartue
3	House Some	- Blooms
	Cline A Trick	- Live of File
pump July	nessure Tretura	- watch footing
	Carlet Ded 1 (2)	- Keep people their
	11 11	hagadors / PPI
Ris out	CHATTER ON OFF PUMP	3 points contact
176-1	Heavy Litting	Trons Lifting
-	Lalling object of Truck	USC Contian
endees: (Print name and sign. If there is no	t enough lines use a second document from this book ar	ad enter the same Continue to
A ACAMONTA	and the second of the second o	to enter the same Service Ticket No.)
M/A XI Store	V- W	
The same	140 11	
4(M) 441 00C		
	A Company of the second	
Shift The Merel	· Clistyfalmy _	
stomer Representative:		
	Print Name Si	gnature
njel Supervisor:	Print Name / BUCHNELL	gnature / Your court
	RECEIVED Dece	
	KLCLIVLD Book	· /

### Sanjel (USA) Inc. 200, 505 - 2nd Street SW

Calgary, Alberta, T2P 1N8 Telephone: (403) 269-1420



## 9153670

This service ticket is not an invoice; pricing

Client Nam	10	Tv	Vell Name 72	J .					eci io		change witho	ut notice.
Address	Arada Ko Pelideum	$\perp$		ack.	han	K		A-5H		Job Date	11/24/10	9
Audiass	Apada Ko Pelideum	1	ocation	0-		· .		7		Service Poir	tuckna	4 44
		C	lient Represen	tative	4.1			2111071		Pricing Area	t State	,
City	Province/State   Postgi/Zip Code	J	ob Type	-	State	1 ) 6	25,	MUSSURU Country		AFE/PO#	<u></u>	17
10	OVET 60 80202	Ŀ	PIA		U	7		Country	N	20	251182	i
District	Service, Equipment & Material Type	pe		12	Cod	e		Quantity	Uı	nit Price	Amou	nt
47	Base Charge to Simale Pump C	3	.4	<u> </u>	392	7	T	8	#11	1200	42100	<del></del>
	Travel-Charge RUND	1/U	1,4				+-	5	<i>D</i> 7:	50-	12,60	00
1	BUK UNIT	-		/.	398	<u> </u>	<u> </u>	$\mathcal{E}_{\mathcal{E}}$	\$ 20	95 <sup>20</sup>	52280	00
	Subsistence			1	402			3	从3	15:00	\$1.015	00
	Envirolog			11	192	,	T	ONE	#	7850	\$78	
	NE Z				262		╁		111	1111 00	A (())	00
	1.11 3						╄	DAJE	18.1	4/,	11/4/	00
	Sub Tolal			#	<u> </u>		$\perp$				17/16H	00
U	Less 30% Discount	1									15,014	80
47	ENOTISMONTAL SUICHWIG.			14	193			ONE	#1	60, <u>ec</u>	\$50	00
	- Contraction of the contraction	<del></del>					+-	way is pur	1.0			
							$\vdash$				1650H	80
							_					
					**		T					
				<del></del>			+-					
							$\vdash$					
	1350 506/20						+		-			
	US62 SG6 ld&						$\vdash$		····			
	KIRT KASMUSSEN						<u> </u>					
		-					T					
							-					
		-		···		<del></del>	<u></u>	<u> </u>			/	
		L		1				FIEI	D ES	TIMATE /	5,064	80
			Cementing	- Pri	n.	奺	Cer	nenting - Rem	).	5 - Fa & 1	e je	
			Colled Tub	ing		-		ogen				
			Stimulation			-		To the second second				
				-				cturing				
			MPCTU	: '			Oth			ر الراب المسلم المرابع		
TT	his space is reserved for the Client Coding Stamp.		Fleid		Sale	s 1		Sales 2			arti Li	
Comments							T	This signature confirms on the reverse of this de	that I have	e read and comply v	vith the terms and conditi	ons as noted
									11	( // -		
							$\perp$	X	12/	- <i>fc</i>		6 DC110 00 00

## Stimulation and Remedia Cementing Service Report



### SERVICE TICKET

# 9153670

Clien	t Name	. 1	<i>t</i> .											
ļ	,	Hysia de	21K0	13/10	A Jai		Well Nan	Plat	rowk A.	011	Job Date			
Clien	t Repre	sentative	17				Location	1/100	10.002 11			1/22	1/10	
Well	Data:		4 176	187111/5	CON		1	20-20	エガケー	RIUE	Job Type	12/1	1	
	Descrip	ption	Size	Weight	Grade	Max. Pres	<u> </u>	True Mana					<u></u>	
Tubi	na	<u> </u>	(in) 2 //3	(lb/ft)	Grade	(psi)	8	tart (ft)	d Depth (TMD) End (ft)	Capacity (bbls)	Pa	ackers and	Workover Too	
	9		10	6.5	<del></del>			<u> </u>	49		Production	Type n Packe	r	TMD (ft)
Casi	na		-7"	23	<del></del>						Retrievabl		1	
*1				120		<del> </del>		2	1100	102211				
Perf	oratio	ns/OH		<del>                                     </del>	<del> </del>						Bridge Plu			
				<del>                                     </del>		<b> </b> -					Selective I	njection	Packer	
				<del> </del>	+									
					<del>                                     </del>		+							· · · · · · · · · · · · · · · · · · ·
Form	ation i	Data:		<u> </u>		L		-						
		Name			Туре		Well 7	Vpe	Temp.	Pressure	Height (ft)			
			-					700	(°F)	(psi)	Gross	Net	Permeability (mD)	Porosity (%)
		ement Da	ta:				-		<u>l</u>					
	re Fluid	<del></del>	т		nsity: (lb/gal	)			Temn	(°F) Water:	D. #			
1	acks	Volume (bbls)	Density (lb/gai)	'	Descriptio	n	% -	Additive	% - Ac		Bulk		Slurry:	
12	35	5	15,8		101	,		CFR		i i	% - Additiv	/e	% - Ac	dditive
							12.		7/2 (	"ac/2				
								······································						
	<u>:</u>								<del></del>					
						-								
								· · · · · · · · · · · · · · · · · · ·				,		
Fluid	Compa	ofibility To	Alasta											
		atibility Te	_											
cid Ti	itratio			(%	HCI Equi	valent)		C	ompatibility Te	ests:				
cid Ti abilit	itratio y:	on: _	P	ass: 🛘	HCI Equi Fa	-	N/A		ompatibility Teesh Size:		Time a	at BHT		
cid Ti abilit on Co	itratio y: ontrol	on: (Live Ac	p id): P	ass: 🗆	Fa Fa	il: 🖸	N/A N/A	. 🗆 M				at BHT:		
cid Ti abilit on Co	itratio y: ontrol	on: _	P id): P e: L	ass: 🗆 ass: 🗆 ive:	Fa Fa mi	il: 🖸		. 🗆 M	esh Size: ve Acid:	P	ass: 🛘	Fail:		N/A
cid Ti abilit on Co nulsi	itratio y: ontrol on Br	on: (Live Acreak Time	P id): P e: L	ass: 🗆	Fa Fa mi	il: 🖸 il: 📮 n: 📮		. 🗆 M	esh Size:	P		_		N/A
cid Ti abilit on Co nulsi estin	tratio y: ontrol on Br	n:	Peid): P	ass:  ass:  pent:	Fa Fa mi	il: 🖸 il: 📮 n: 📮		. □ M . □ Li Si	esh Size: ve Acid: pent Acid:	P	ass: 🛘	Fail:		N/A
cid Ti abilit on Co nulsi estin Oil Co	tratio y: ontrol on Br	ch:	Peid): P	ass:  ass:  pent:	Fa Fa mi	il: 🖸 il: 📮 n: 📮		. □ M . □ Li Si	esh Size: ve Acid:	P	ass: 🛘	Fail:		N/A
cid Ti abilit on Co nulsi estin Oil Co reatm	itrationy: ontrolon Brompa g Wittompa ent Re	(Live Acreak Time nessed I ny Repre	Pid): Pe: L Soy:	ass:    ass:     pent:	Fa Fa mi mi	il: 🖸 il: 📮 n: 📮	N/A	Sig	esh Size: ve Acid: pent Acid: gnature:	P	ass: 🛘	Fail:		N/A
estin Oil Coreatm	itration cy: ontrol on Br g Wit ompa ent Re	(Live Acreak Time nessed Inny Represent:	Peid): P	ass:    ass:     pent:	Fa Fa mi	il:  I il:  I n:  I n.	N/A	Signification of the state of t	esh Size: ve Acid: pent Acid: gnature:	P	ass: 🛘	Fail:		N/A
estin Or Conulsi estin Oil Coreatm	g Wittompa ent Re	(Live Acreak Time nessed Iny Represent:	Pe: L S by: Sentativ	ass:  ass:  ass:  pent:   Fa Fa mi mi	il:	N/A	Siq	esh Size: ve Acid: pent Acid: gnature:	F	Pass:  Remarks	Fail:	0	N/A	
estin Dil Coreatm	g Witcompa ent Re	(Live Acreak Time	Pe: L S by: Sentativ	ass:  ass:  ass:  pent:   Fa Fa mi mi	il:  I il:  I n:  I n.	N/A	Signification of the state of t	esh Size:ve Acid:	P P Ocation - Tim	dass: □	Fail:	0	N/A	
estin Coreatm	itrations:  pontrol on Br g Wittompa ent Re Time	(Live Acreak Time	Pressure	ass:  ass:  ass:  pent:   Fa Fa mi mi	il:  il:  il:  il:  il:  il:  il:  il:	N/A	Signification of the state of t	esh Size:	P P ocation - Tim	Pass:  Remarks	Fail:	0	N/A	
cid Ti abiliti on Co nulsi estin Oil Co reatm	g Without Records 1000 1000 1000 1000 1000 1000 1000 10	(Live Acreak Time	Peid): Pe: L S S S S S S S S S S S S S S S S S S S	ass:  ass:  ass:  pent:   Fa Fa mi mi	il:  I il:  I n:  I n.	Total Volume (bbls)	Signification of the state of t	esh Size:	ocation - Tin	Pass: □ Remarks Requested	Fail:	0	N/A	
cid Ti abilit abilit on Co nulsi estin Oil Co reatm #	g Witcompa ent Re	(Live Acreak Time messed I my Representation)	Peid): Pe: L S S S S S S S S S S S S S S S S S S S	ass:  ass:  ass:  pent:   Fa Fa mi mi	il:  il:  il:  il:  il:  il:  il:  il:	Total Volume (bbls)	Signification of the state of t	esh Size:	ocation - Time	Remarks  Re Requested	Fail:	0	N/A	
cid Ti cabilit	g Without Records 1000 1000 1000 1000 1000 1000 1000 10	(Live Acreak Time messed I my Representation)	Peid): Pe: L S S S S S S S S S S S S S S S S S S S	ass:  ass:  ass:  pent:   Fa Fa mi mi	il: □ il: □ n: □ n. Stage Volume (bbls)	Total Volume (bbls)	Signification of the state of t	esh Size:	ocation - Time ting est	Pass: □ Remarks Requested	Fail:	0	N/A	
cid Ti cabilit	g Witcompa ent Re	(Live Acreak Time messed I my Representation)	Peid): Pe: L S S S S S S S S S S S S S S S S S S S	ass:  ass:  ass:  pent:   Fa Fa mi mi	il: □ il: □ n: □ n. Stage Volume (bbls)	Total Volume (bbls)	Signification of the state of t	esh Size:	ocation - Time	Remarks The Requested	Fail:	0	N/A	
cid Ti abiliti abiliti abiliti abiliti con Co nulsi con C	itratio cy: ontrol on Br g Wit pmpa ent Re Time	(Live Acreak Time nessed I ny Representation of the text of the te	Pressure	ass:  ass:  ass:  pent:   Fa Fa mi mi	il: □ il: □ n: □ n. Stage Volume (bbls)	Total Volume (bbls)	Signification of the state of t	esh Size:ve Acid:	ocation - Time ting est  # 7 0 #  * 10 6 #	Remarks  Re Requested  A Mark	Fail: Fail:	130	N/A	
estin Ti abiliti abili	itratio cy: ntrol on Br g Wit Dmpa ent Re Time 06:377.077.077.077.077.077.077.077.077.077.	(Live Acreak Time nessed I ny Repression Tuber 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Pressure pular	ass:  ass:  ass:  pent:  pent:  pent:  Annular	Fa Fa mi mi Rate (bbls/min)	ili: □ ili: □ n: □ n.  Stage Volume (bbls)	Total Volume (bbls)	Signature of the state of the s	Arrive on L Safety Meet Pressure Te	ocation - Time ting est	Remarks  Re Requested  A Mark	Fail: Fail:	0	N/A
estin Ti abiliti abili	itratio cy: ontrol on Br g Wit pmpa ent Re Time 06.377.077.077.077.077.077.077.077.077.077	(Live Acreak Time Inessed Innessed Inne	Pressure pular	ass:  ass:  ass:  pent:  pent:  pent:  ass:  ass	Fa Fa mi mi Rate (bbls/min)	il: □ il: □ n: □ n. Stage Volume (bbls)	Total Volume (bbls)	Signification of the state of t	esh Size:ve Acid:	ocation - Time ting est  # 7 0 #  * 10 6 #	Remarks  Re Requested  A Mark	Fail:	730	N/A C
estin Ti abiliti abili	itratio cy: ontrol on Br g Wit Dimpa ent Re Time 77.00	(Live Acreak Time reak Time ressed I re	Pressure pular	ass:  ass:  ass:  pent:  pent:  pent:  ass:  ass	Rate (bbls/min)	ili: U ili: U n: U n. Stage Volume (bbls)	Total Volume (bbls)	Signature of the state of the s	Arrive on L Safety Meet Pressure Te F/c.sh SAM Card #	ocation - Time ting est  # 7 0 #  * 10 6 #	Remarks  Re Requested  A Mark	Fail: Fail:	Finish:	N/A C
estin Ti abiliti abili	itratio cy: ontrol on Br g Wit Dimpa ent Re Time 000000000000000000000000000000000000	(Live Acreak Time reak Time reak Time ressed I report:  Tub 100 100 100 100 100 100 100 100 100 10	Pressure pular  Pressure pular  (A Pressure pular Pressure pular Pressure pular Pressure pular Pressure Pressur	ass:  ass:  ass:  pent:  pent:  pent:  ass:  ass	Fa Fa mi mi Rate (bbls/min)  1.75 1. 1.001	ili: IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Total Volume (bbls)	Signature of the state of the s	Arrive on L Safety Meet Pressure Te	ocation - Time ting est  # 7 0 #  * 10 6 #	Remarks  Re Requested  A Mark	Fail: Fail: Bin #	Finish:	N/A C
estinusi est	itrationy:	(Live Acreak Time Inessed Inny Representation In Inch Inch Inch Inch Inch Inch Inch	Pressure pular  Pressure pular  Dushyic Ploa	ass:  ass:  ass:  pent:  pent:  pent:  ass:  ass	Rate (bbls/min)  Justin  74007	ili: IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Total Volume (bbls)	Signature of the state of the s	Arrive on L Safety Meet Pressure Te F/c.sh SAM Card #	ocation - Time ting est  # 7 0 #  * 10 6 #	Remarks  Re Requested  A Mark	Fail: Fail: Bin #	Finish:	N/A C
estin Ti abiliti abili	itration y: ontrol on Br g Witt Dimpa ent Re Time 06.77.07.07.07.07.07.07.07.07.07.07.07.07.	(Live Acreak Time reak Time reak Time ressed I report:  Tub 100 100 100 100 100 100 100 100 100 10	Pressure pular  Pressure pular  Dushyic Ploa	ass:  ass:  ass:  pent:  pent:  pent:  ass:  ass	Fa Fa mi mi Rate (bbls/min)  1.75 1. 1.001	ili: IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Total Volume (bbls)	Signature of the state of the s	Arrive on L Safety Meet Pressure Te F/c.sh SAM Card #	ocation - Time ting est  # 7 0 #  * 10 6 #	Remarks  Re Requested  A Mark	Fail: Fail: Bin #	Finish:	N/A



																					-	
Cody Bushnell	Riverton Wy	11/24/2010							De:SD	:				08:20								08:50
Sor	District							0 7			:			09:45								09:45
Supervisor	Service District	200 17 200						9.4	<del>}</del>					09:40								09:40
								98. 88.						08:35								09:35
Kirt Rasmussen	Abandonment Plugs							08:30		•				08:30			,					09:30
Kirt Rasmussen	Abandor							09:25						09:25								09:25
Client Rep Well Name	Job Type							08:20					Ţ	08:20				*************************				08:50 08:50
g								09:15						09:15							1	09:15
Anadarko Petroleum 9153670	Sec20 T13S R10E						T	08:10					\					<del></del>		<del></del> -	•	08:10
è	<del>                                     </del>						Ĺ	09:05						09:05				-			i	S0:30
Client	20							08:00					) () ()	00:00							Ç	3 3 3 3 3
	A Specialized Energy Service Company		10.00	8:00	6.00	4.00	2.00	0.00 08:55	1000.00	800.00	800.00	400.00	200.00	0.00 08:55	18.00	16.00	14:00	12.00	10.00	8.00	9.00	06:33
	Scholized En					udq)						(Isd)						(jeb	(dl)			
7	<b>)</b> \$			lstoT	∙ ete F	17700	).∳7 Jir	ηU		du.	T Pur	7001/ 18881	7 JinU 7			Ąį	SUƏ(	] [[	001	i tinU	)	

**RECEIVED** December 15, 2010

#### Division of Oil, Gas and Mining

### **OPERATOR CHANGE WORKSHEET (for state use only)**

ROUTING	
CDW	

X - Change of Operator (Well Sold)				Operator Na	ame Chan	ge/Merger				
The operator of the well(s) listed below has chan	ged, e	ffective	:		<del></del>	4/1/2013				
FROM: (Old Operator): N0035-Anadarko Petroleum Corporation PO Box 173779 Denver, CO, 80214				TO: (New Operator): N3940- Anadarko E&P Onshore LLC PO Box 173779 Denver, CO 802014						
Phone: 1 (720) 929-6000				Phone: 1 (720)	929-6000					
CA No.	-			Unit:						
WELL NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS		
See Attached List										
OPERATOR CHANGES DOCUMENT. Enter date after each listed item is completed  1. (R649-8-10) Sundry or legal documentation wa  2. (R649-8-10) Sundry or legal documentation wa	s rece	eived fro		_		4/9/2013				
3. The new company was checked on the <b>Departu</b>	nent (	of Com	merce	, Division of Co	orporation	s Database on:	•	4/10/2013		
4a. Is the new operator registered in the State of U. 5a. (R649-9-2) Waste Management Plan has been re 5b. Inspections of LA PA state/fee well sites compl. 5c. Reports current for Production/Disposition & S.	ceive ete or undri	n: es on:		Yes 4/10/2013 4/10/2013	- - -	593715-0161				
6. Federal and Indian Lease Wells: The BL					_		DIA	NT/A		
or operator change for all wells listed on Federa 7. Federal and Indian Units:	u or i	ndian ie	ases o	n:	BLM	4/2/2013	BIA	N/A		
The BLM or BIA has approved the successor	ofun	it oners	tor for	· wells listed on:		N/A				
8. Federal and Indian Communization Ag		_			•	17/11	-			
The BLM or BIA has approved the operator is			-			N/A				
9. Underground Injection Control ("UIC"					orm 5 Trai		ity to			
Inject, for the enhanced/secondary recovery un							4/10/2013			
DATA ENTRY:	- p- 0,	, •••			(-)					
1. Changes entered in the Oil and Gas Database	on:			4/11/2013						
2. Changes have been entered on the Monthly Op		r Chan	ge Sp	read Sheet on:	•	4/11/2013				
3. Bond information entered in RBDMS on:				4/10/2013	-					
4. Fee/State wells attached to bond in RBDMS on			,	4/11/2013	-					
5. Injection Projects to new operator in RBDMS of		D/Marr		4/11/2013	- NT/A					
6. Receipt of Acceptance of Drilling Procedures for	or AP	D/New	on:		<u>N/A</u>	-				
BOND VERIFICATION:  1. Federal well(s) covered by Bond Number:				WYB000291						
<ol> <li>Federal well(s) covered by Bond Number:</li> <li>Indian well(s) covered by Bond Number:</li> </ol>				N/A	-					
3a. (R649-3-1) The <b>NEW</b> operator of any state/fe	e well	(s) liste	d cove		- umber	22013542				
3b. The <b>FORMER</b> operator has requested a release				_	N/A		•			
		<b>~</b> **				-				
LEASE INTEREST OWNER NOTIFIC					1 2	a stri				
4. (R649-2-10) The <b>NEW</b> operator of the fee wells					-	om the Division				
of their responsibility to notify all interest owner	s of t	nis chan	ige on:		4/11/2013					
COMMENTS:										

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES 5. LEASE DESIGNATION AND SERIAL NUMBER: DIVISION OF OIL, GAS AND MINING See Wells 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: SUNDRY NOTICES AND REPORTS ON WELLS 7. UNIT or CA AGREEMENT NAME: Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. 8. WELL NAME and NUMBER: 1. TYPE OF WELL OTHER CBM Wells GAS WELL OIL WELL 9. API NUMBER: 2. NAME OF OPERATOR: See Wells Anadarko Petroleum Corporation 10. FIELD AND POOL, OR WILDCAT: PHONE NUMBER: 3. ADDRESS OF OPERATOR: (720) 929-6000 STATE CO 710 80217 P.O. Box 173779 Denver 4. LOCATION OF WELL FOOTAGES AT SURFACE: STATE: QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: UTAH CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF ACTION TYPE OF SUBMISSION REPERFORATE CURRENT FORMATION ACIDIZE DEEPEN NOTICE OF INTENT SIDETRACK TO REPAIR WELL FRACTURE TREAT (Submit in Duplicate) ALTER CASING TEMPORARILY ABANDON NEW CONSTRUCTION Approximate date work will start: CASING REPAIR TUBING REPAIR CHANGE TO PREVIOUS PLANS OPERATOR CHANGE 4/8/2013 VENT OR FLARE PLUG AND ABANDON CHANGE TUBING SUBSEQUENT REPORT WATER DISPOSAL PLUG BACK CHANGE WELL NAME (Submit Original Form Only) WATER SHUT-OFF PRODUCTION (START/RESUME) CHANGE WELL STATUS Date of work completion: COMMINGLE PRODUCING FORMATIONS RECLAMATION OF WELL SITE OTHER: RECOMPLETE - DIFFERENT FORMATION CONVERT WELL TYPE 12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. The operator is requesting authorization to transfer the wells from Anadarko Petroleum Corporation and Anadarko Production Company to Anadarko E&P Onshore, LLC. Please see the attached list of 181 wells that are currently filed under Anadarko Petroleum Corporation and Anadarko Production Company. The state/fee wells will be under bond number 22013542, and the KEULIVED federal wells will be under bond number WYB000291. Effective 4/1/13 APR 0 9 2013 Please contact the undersigned if there are any questions. DIV OF OIL GAS & MININ Jaime Scharnowske Jaime Scharnowske Regulatory Analyst Regulatory Analyst Anadarko E&P Onshore, LLC N 3940 NO035 Anadarko Petroleum Corporation P.O. Box 173779 P.O. Box 173779 Denver, CO 80214 Denver, CO 80214 (720) 929-6000 (720) 929-6000 Regulatory Analyst Jaime Scharnowske NAME (PLEASE PRINT) DATE 4/8/2013 SIGNATURE

(This space for State u

APR 1 1 2013

DIV. OIL GAS & MINING Rachel Modina (See Instructions on Reverse Side)

### Anadarko Petroleum Corporation (N0035) to Anadarko E&P Onshore, LLC (N3940) Effective 1- April-2013

						Lease	Well	Well
Well Name	Sec	Twnshp	Range	API	Entity No.	Type	Type	status
HELPER ST SWD 1	03	140S	100E	4300730361	12258	State	WD	Α
FED F-2 SWD	08	140S	100E	4300730555	12557	Federal	WD	A
CLAWSON SPRING ST SWD 4	13	160S	080E	4301530477	12979	State	WD	Α
CLAWSON SPRING ST SWD 1	36	150S	080E	4300730721	12832	State	WD	I
HELPER FED B-1	33	130S	100E	4300730189	11537	Federal	GW	P
HELPER FED A-1	23	130S	100E	4300730190	11517	Federal	GW	P
HELPER FED A-3	22	130S	100E	4300730213	11700	Federal	GW	P
HELPER FED C-1	22	130S	100E	4300730214	11702	Federal	GW	P
HELPER FED B-5	27	130S	100E	4300730215	11701	Federal	GW	P
HELPER FED A-2	22	130S	100E	4300730216	11699	Federal	GW	P
HELPER FED D-1	26	130S	100E	4300730286	12061	Federal	GW	P
BIRCH A-1	05	140S	100E	4300730348	12120	Fee	GW	P
HELPER ST A-1	03	140S	100E	4300730349	12122	State	GW	P
HELPER ST D-7	04	140S	100E	4300730350	12121	State	GW	P
CHUBBUCK A-1	31	130S	100E	4300730352	12397	Fee	GW	P
VEA A-1	32	130S	100E	4300730353	12381	Fee	GW	P
VEA A-2	32	130S	100E	4300730354	12483	Fee	GW	P
VEA A-3	32	130S	100E	4300730355	12398	Fee	GW	P
VEA A-4	32	130S	100E	4300730356	12482	Fee	GW	P
HELPER ST A-8	02	140S	100E	4300730357	12257	State	GW	P
HELPER ST A-3	02	140S	100E	4300730358	12254	State	GW	P
HELPER ST A-4	02	140S	100E	4300730359	12255	State	GW	P
HELPER ST A-7	02	140S	100E	4300730360	12256	State	GW	P
HELPER ST A-2	03	140S	100E	4300730362	12232	State	GW	P
HELPER ST A-5	03	140S	100E	4300730363	12231	State	GW	P
HELPER ST A-6	03	140S	100E	4300730364	12233	State	GW	P
HELPER ST D-4	04	140S	100E	4300730365	12228	State	GW	P
HELPER ST D-3	05	140S	100E	4300730366	12184	State	GW	P
HELPER ST D-5	04	140S	100E	4300730367	12226	State	GW	P
HELPER ST D-8	04	140S	100E	4300730368		State	GW	P
HELPER ST D-2	05	140S	100E	4300730369		State	GW	P
HELPER ST D-6	05	140S	100E	4300730370		State	GW	P
HELPER ST D-1	06	140S	100E	4300730371	12399	State	GW	P
BIRCH A-2	08	140S	100E	4300730372	12189	Fee	GW	P
HELPER ST A-9	10	140S	100E	4300730373	12230	State	GW	P
HELPER ST B-1	09	140S	100E	4300730376	12227	State	GW	P
HELPER FED F-3	08	140S	100E	4300730378	12252	Federal	GW	P
HELPER FED F-4	09	140S	100E	4300730379		Federal	GW	P
HELPER ST A-10	10	140S	100E	4300730433	12488	State	GW	P
HELPER ST A-10 HELPER ST A-11	11	140S	100E	4300730434		State	GW	P
HELPER ST A-11 HELPER ST A-12	10	140S	100E	4300730434		State	GW	P
HELPER ST A-12 HELPER ST A-13	10	140S	100E	4300730435		State	GW	P
	09	140S	100E	4300730430		State	GW	P
HELPER ST B-2 HELPER FED E-7	19	130S	100E	4300730437		Federal	GW	P
	33	130S	100E	4300730530		Federal	GW	P
HELPER FED B-2	33	130S 130S	100E 100E	4300730530	12619	Federal	GW	P
HELPER FED B-4	33	130S 130S	100E 100E	4300730531		Federal	GW	P
HELPER FED B-4		130S 130S	100E 100E	4300730532		Federal	GW	P
HELPER FED B-6	27		100E 100E	4300730533		Federal	GW	P
HELPER FED B-7	27	130S					GW	P
HELPER FED B-8	27	130S	100E	4300730535	12631	Federal	G W	I.

### Anadarko Petroleum Corporation (N0035) to Anadarko E&P Onshore, LLC (N3940) Effective1-April-2013

Near							Lease	Well	Well
HELPER FED B-9	Well Name	Sec	Twnshp	Range	API	Entity No.			
HELPER FED B-10								GW	P
HELPER FED B-11					4300730537	12626	Federal	GW	P
HELPER FED B-12					4300730538	12628	Federal	GW	P
HELPER FED B-13						12627	Federal	GW	P
HELPER FED B-14						12621	Federal	GW	P
HELPER FED D-2				100E	4300730541	12620	Federal	GW	P
HELPER FED D-3					4300730542	12650	Federal	GW	P
HELPER FED D-4		26	130S	100E	4300730543	12634	Federal	GW	P
HELPER FED D-5					4300730544	12625	Federal	GW	P
HELPER FED D-6		35	130S	100E	4300730545	12637	Federal	GW	P
HELPER FED E-1		35	130S	100E	4300730546	12635	Federal	GW	P
HELPER FED H-2		29	130S	100E	4300730547	13246	Federal	GW	P
HELPER FED H-1		29	130S	100E	4300730548	12636	Federal	GW	P
HELPER FED H-2		01	140S	100E	4300730549	12653	Federal	GW	P
OLIVETO FED A-2		01	140S	100E	4300730550	12647	Federal	GW	P
HELPER FED F-1		08	140S	100E	4300730556	12630	Federal	GW	P
SMITH FED A-1   09   140S   100E		08	140S	100E	4300730557	12629	Federal	GW	P
SE INVESTMENTS A-1		09	140S	100E	4300730558	13004	Federal	GW	P
HELPER ST A-14		06	140S	100E	4300730570	12624	Fee	GW	P
HELPER ST A-15 HELPER ST E-1 36 130S 100E 4300730572 12613 State GW P HELPER ST E-1 36 130S 100E 4300730573 12615 State GW P HELPER ST E-2 36 130S 100E 4300730574 12616 Fee GW P HARMOND A-1 07 140S 100E 4300730586 12616 Fee GW P HELPER ST E-3 36 130S 100E 4300730586 12616 Fee GW P HELPER ST E-3 36 130S 100E 4300730592 12868 State GW P HELPER FED A-6 23 130S 100E 4300730593 12649 Federal GW P HELPER FED D-7 26 130S 100E 4300730594 12651 Federal GW P HELPER FED D-8 35 130S 100E 4300730595 12652 Federal GW P HELPER ST E-4 36 130S 100E 4300730595 12652 Federal GW P HELPER ST E-4 36 130S 100E 4300730595 12652 Federal GW P HELPER ST E-4 36 130S 100E 4300730597 12618 State GW P HELPER ST A-16 11 140S 100E 4300730604 12648 Fee GW P CLAWSON SPRING ST A-2 36 150S 080E 4300730604 12648 Fee GW P CLAWSON SPRING ST A-3 36 150S 080E 4300730605 12856 State GW P CLAWSON SPRING ST A-3 36 150S 080E 4300730635 12856 State GW P CLAWSON SPRING ST D-5 31 150S 080E 4300730636 13001 State GW P CLAWSON SPRING ST D-5 31 150S 090E 4300730644 12849 State GW P CLAWSON SPRING ST D-6 31 150S 090E 4300730643 12847 State GW P CLAWSON SPRING ST D-7 31 150S 090E 4300730644 12849 State GW P CLAWSON SPRING ST D-7 31 150S 090E 4300730643 12847 State GW P HELPER FED A-7 HELPER FED A-7 22 130S 100E 4300730679 13015 Federal GW P HELPER FED A-5 HELPER FED A-7 22 130S 100E 4300730679 13015 Federal GW P HELPER FED C-2 24 130S 100E 4300730680 13203 Federal GW P HELPER FED C-4 24 130S 100E 4300730680 13203 Federal GW P HELPER FED C-7 21 130S 100E 4300730685 13245 Federal GW P HELPER FED C-7 21 130S 100E 4300730687 13015 Federal GW P HELPER FED D-10 25 130S 100E 4300730687 12844 State GW P HELPER FED D-10 25 130S 100E 4300730687 13010 Federal GW P HELPER FED D-10 25 130S 100E 4300730687 13015 Federal GW P HELPER FED D-10 25 130S 100E 4300730687 12992 Federal GW P HELPER FED D-10 25 130S 100E 4300730687 12992 Federal GW P HELPER FED D-10 4300730688 13005 Federal GW P HELPER FED D-10 4300730688 13005 Federal GW P HELPER FED D-10 4300730688 13005 Federal GW P H				100E	4300730571	12612	State	GW	P
HELPER ST E-1 36 130S 100E 4300730573 12615 State GW P HELPER ST E-2 36 130S 100E 4300730574 12614 State GW P HARMOND A-1 07 140S 100E 4300730586 12616 Fee GW P HELPER ST E-3 36 130S 100E 4300730592 12868 State GW P HELPER FED A-6 23 130S 100E 4300730593 12649 Federal GW P HELPER FED D-7 26 130S 100E 4300730594 12651 Federal GW P HELPER FED D-8 35 130S 100E 4300730595 12652 Federal GW P CLAWSON SPRING ST A-1 36 150S 080E 4300730597 12618 State GW P HELPER ST E-4 36 130S 100E 4300730597 12618 State GW P HELPER ST A-16 11 140S 100E 4300730598 12825 State GW P CLAWSON SPRING ST A-2 36 150S 080E 4300730603 12638 State GW P CLAWSON SPRING ST A-3 36 150S 080E 4300730603 12638 State GW P CLAWSON SPRING ST A-3 36 150S 080E 4300730603 12638 State GW P CLAWSON SPRING ST A-3 36 150S 080E 4300730603 12846 State GW P CLAWSON SPRING ST A-3 36 150S 080E 4300730635 12856 State GW P CLAWSON SPRING ST A-3 36 150S 080E 4300730635 12856 State GW P CLAWSON SPRING ST A-3 36 150S 080E 4300730636 13001 State GW P CLAWSON SPRING ST D-5 31 150S 090E 4300730642 12852 State GW P CLAWSON SPRING ST D-5 31 150S 090E 4300730641 12849 State GW P CLAWSON SPRING ST D-5 31 150S 090E 4300730644 12849 State GW P CLAWSON SPRING ST D-6 31 150S 090E 4300730644 12849 State GW P HELPER FED A-5 23 130S 100E 4300730678 13346 Federal GW P HELPER FED A-5 23 130S 100E 4300730678 13346 Federal GW P HELPER FED B-15 28 130S 100E 4300730680 13203 Federal GW P HELPER FED C-2 24 130S 100E 4300730681 13016 Federal GW P HELPER FED C-2 24 130S 100E 4300730681 13016 Federal GW P HELPER FED C-2 24 130S 100E 4300730681 13016 Federal GW P HELPER FED C-7 21 130S 100E 4300730681 13016 Federal GW P HELPER FED C-7 21 130S 100E 4300730681 13016 Federal GW P HELPER FED D-10 25 130S 100E 4300730688 13295 Federal GW P HELPER FED D-10 25 130S 100E 4300730688 12992 Federal GW P HELPER FED D-10 25 130S 100E 4300730688 13005 Federal GW P HELPER FED D-10 25 130S 100E 4300730688 13005 Federal GW P		11		100E	4300730572	12613	State	GW	P
HELPER ST E-2  36 130S 100E				100E	4300730573	12615	State	GW	P
HARMOND A-1 07 140S 100E 4300730586 12616 Fee GW P HELPER ST E-3 36 130S 100E 4300730592 12868 State GW P HELPER FED A-6 23 130S 100E 4300730593 12649 Federal GW P HELPER FED D-7 26 130S 100E 4300730594 12651 Federal GW P HELPER FED D-8 35 130S 100E 4300730595 12652 Federal GW P HELPER ST E-D D-8 35 130S 100E 4300730595 12652 Federal GW P HELPER ST E-4 36 130S 100E 4300730597 12618 State GW P HELPER ST A-16 11 140S 100E 4300730598 12825 State GW P CHUBBUCK A-2 06 140S 100E 4300730603 12638 State GW P CLAWSON SPRING ST A-3 36 150S 080E 4300730603 12638 State GW P CLAWSON SPRING ST A-3 36 150S 080E 4300730635 12856 State GW P CLAWSON SPRING ST A-4 36 150S 080E 4300730635 12856 State GW P CLAWSON SPRING ST A-5 31 150S 080E 4300730637 12844 State GW P CLAWSON SPRING ST D-5 31 150S 090E 4300730642 12852 State GW P CLAWSON SPRING ST D-5 31 150S 090E 4300730642 12852 State GW P CLAWSON SPRING ST D-5 31 150S 090E 4300730642 12852 State GW P CLAWSON SPRING ST D-7 31 150S 090E 4300730642 12852 State GW P CLAWSON SPRING ST D-6 31 150S 090E 4300730641 12849 State GW P CLAWSON SPRING ST D-7 31 150S 090E 4300730641 12849 State GW P HELPER FED A-7 22 130S 100E 4300730677 13010 Federal GW P HELPER FED B-15 28 130S 100E 4300730679 13015 Federal GW P HELPER FED B-16 28 130S 100E 4300730681 13203 Federal GW P HELPER FED C-2 24 130S 100E 4300730681 13016 Federal GW P HELPER FED C-2 24 130S 100E 4300730681 13016 Federal GW P HELPER FED C-2 24 130S 100E 4300730684 13203 Federal GW P HELPER FED C-2 24 130S 100E 4300730684 13204 Federal GW P HELPER FED C-7 21 130S 100E 4300730686 13203 Federal GW P HELPER FED D-9 25 130S 100E 4300730686 12993 Federal GW P HELPER FED D-10 25 130S 100E 4300730686 12993 Federal GW P HELPER FED D-10 25 130S 100E 4300730688 13005 Federal GW P HELPER FED D-10 25 130S 100E 4300730688 13005 Federal GW P					4300730574	12614	State	GW	P
HELPER ST E-3  36 130S 100E 4300730592 12868 State GW P HELPER FED A-6  HELPER FED D-7  26 130S 100E 4300730593 12649 Federal GW P HELPER FED D-7  26 130S 100E 4300730594 12651 Federal GW P HELPER FED D-8  35 130S 100E 4300730595 12652 Federal GW P HELPER ST B-4  36 150S 080E 4300730595 12652 Federal GW P HELPER ST E-4  36 130S 100E 4300730598 12825 State GW P HELPER ST A-16  11 140S 100E 4300730603 12638 State GW P HELPER ST A-16  11 140S 100E 4300730604 12648 Fee GW P CLAWSON SPRING ST A-2  36 150S 080E 4300730604 12648 Fee GW P CLAWSON SPRING ST A-3  36 150S 080E 4300730635 12856 State GW P CLAWSON SPRING ST A-3  36 150S 080E 4300730635 12856 State GW P CLAWSON SPRING ST A-3  36 150S 080E 4300730631 12844 State GW P CLAWSON SPRING ST A-4  36 150S 080E 4300730631 12844 State GW P CLAWSON SPRING ST D-5  31 150S 090E 4300730642 12852 State GW P CLAWSON SPRING ST D-5  31 150S 090E 4300730642 12852 State GW P CLAWSON SPRING ST D-6  31 150S 090E 4300730641 12849 State GW P CLAWSON SPRING ST D-7  31 150S 090E 4300730644 12849 State GW P HELPER FED A-5  430S 100E 4300730677 13010 Federal GW P HELPER FED A-7  HELPER FED B-15  28 130S 100E 4300730677 13010 Federal GW P HELPER FED B-16  28 130S 100E 4300730680 13203 Federal GW P HELPER FED C-2  4 130S 100E 4300730681 13016 Federal GW P HELPER FED C-7  21 130S 100E 4300730681 13016 Federal GW P HELPER FED C-7  21 130S 100E 4300730681 13016 Federal GW P HELPER FED C-7  21 130S 100E 4300730681 13016 Federal GW P HELPER FED D-9  25 130S 100E 4300730681 13016 Federal GW P HELPER FED D-10  25 130S 100E 4300730681 13203 Federal GW P HELPER FED D-10  4300730688 13205 Federal GW P HELPER FED D-10  4400730688 13205 Federal GW P HELPER FED D-10  4500730688 13205 Federal GW P HELPER FED D-10  4500730688 13205 Federal GW P HELPER FED D-10  4500730688 13205 Federal GW P					4300730586	12616	Fee	GW	P
HELPER FED A-6 HELPER FED D-7 HELPER FED D-7 LAWSON SPRING ST A-1 HELPER ST A-16 CLAWSON SPRING ST A-2 CLAWSON SPRING ST A-2 CLAWSON SPRING ST A-3 B 150S B 100E B 4300730597 B 12652 B 76deral B 70W P HELPER ST E-4 B 100E B 1100E B 4300730597 B 12618 B 5tate B 70W P HELPER ST E-4 B 100E B 1100E B 14300730597 B 12618 B 5tate B 70W		36		100E	4300730592	12868	State	GW	P
HELPER FED D-7 HELPER FED D-8 35 130S 100E 4300730594 12651 Federal GW P HELPER FED D-8 35 130S 100E 4300730595 12652 Federal GW P HELPER ST D-8 CLAWSON SPRING ST A-1 36 150S 080E 4300730597 12618 State GW P HELPER ST E-4 36 130S 100E 4300730598 12825 State GW P HELPER ST A-16 11 140S 100E 4300730603 12638 State GW P CHUBBUCK A-2 06 140S 100E 4300730604 12648 Fee GW P CLAWSON SPRING ST A-3 36 150S 080E 4300730635 12856 State GW P CLAWSON SPRING ST A-3 36 150S 080E 4300730635 12856 State GW P CLAWSON SPRING ST A-3 36 150S 080E 4300730636 13001 State GW P CLAWSON SPRING ST D-5 31 150S 080E 4300730637 12844 State GW P CLAWSON SPRING ST D-6 31 150S 090E 4300730642 12852 State GW P CLAWSON SPRING ST D-6 31 150S 090E 4300730643 12847 State GW P CLAWSON SPRING ST D-7 31 150S 090E 4300730644 12849 State GW P HELPER FED A-5 HELPER FED A-7 22 130S 100E 4300730677 13010 Federal GW P HELPER FED B-16 48 HELPER FED B-16 28 130S 100E 4300730681 13016 Federal GW P HELPER FED C-2 24 130S 100E 4300730681 13016 Federal GW P HELPER FED C-7 21 130S 100E 4300730681 13016 Federal GW P HELPER FED C-7 21 130S 100E 4300730681 13016 Federal GW P HELPER FED C-7 21 130S 100E 4300730681 13016 Federal GW P HELPER FED C-7 21 130S 100E 4300730681 13016 Federal GW P HELPER FED C-7 21 130S 100E 4300730681 13016 Federal GW P HELPER FED C-7 21 130S 100E 4300730681 13016 Federal GW P HELPER FED C-7 21 130S 100E 4300730685 13245 Federal GW P HELPER FED D-10 25 130S 100E 4300730687 12840 FED P FED				100E	4300730593	12649	Federal	GW	P
HELPER FED D-8   35   130S   100E   4300730595   12652   Federal   GW   P		26	130S	100E	4300730594	12651	Federal	GW	P
CLAWSON SPRING ST A-1         36         150S         080E         4300730597         12618         State         GW         P           HELPER ST E-4         36         130S         100E         4300730598         12825         State         GW         P           HELPER ST A-16         11         140S         100E         4300730603         12638         State         GW         P           CHUBBUCK A-2         06         140S         100E         4300730604         12648         Fee         GW         P           CLAWSON SPRING ST A-2         36         150S         080E         4300730635         12856         State         GW         P           CLAWSON SPRING ST A-3         36         150S         080E         4300730637         12844         State         GW         P           CLAWSON SPRING ST D-5         31         150S         090E         4300730642         12852         State         GW         P           CLAWSON SPRING ST D-6         31         150S         090E         4300730641         12847         State         GW         P           CLAWSON SPRING ST D-7         31         150S         090E         4300730641         12849         State		35	130S	100E	4300730595	12652	Federal	GW	P
HELPER ST E-4  HELPER ST A-16  HELPER ST A-16  CHUBBUCK A-2  O6 140S  100E  4300730603  12638  State  GW  P  CHUBBUCK A-2  O6 140S  100E  4300730604  12648  Fee  GW  P  CLAWSON SPRING ST A-2  36 150S  080E  4300730635  12856  State  GW  P  CLAWSON SPRING ST A-3  36 150S  080E  4300730635  12856  State  GW  P  CLAWSON SPRING ST A-4  36 150S  080E  4300730636  13001  State  GW  P  CLAWSON SPRING ST A-4  36 150S  080E  4300730637  12844  State  GW  P  CLAWSON SPRING ST D-5  31 150S  090E  4300730642  12852  State  GW  P  CLAWSON SPRING ST D-6  31 150S  090E  4300730643  12847  State  GW  P  CLAWSON SPRING ST D-7  31 150S  090E  4300730644  12849  State  GW  P  HELPER FED A-7  HELPER FED A-7  HELPER FED B-15  28 130S  100E  4300730677  13010  Federal  GW  P  HELPER FED B-16  28 130S  100E  4300730680  13203  Federal  GW  P  HELPER FED C-2  24 130S  100E  4300730681  13016  Federal  GW  P  HELPER FED C-7  21 130S  100E  4300730685  13245  Federal  GW  P  HELPER FED D-10  25 130S  100E  4300730687  13292  Federal  GW  P  HELPER FED D-11  25 130S  100E  4300730687  12992  Federal  GW  P  HELPER FED D-12  P  HELPER FED D-12		36	150S	080E	4300730597	12618	State	GW	P
HELPER ST A-16 CHUBBUCK A-2 06 140S 100E 4300730603 12638 State GW P CLAWSON SPRING ST A-2 36 150S 080E 4300730604 12648 Fee GW P CLAWSON SPRING ST A-2 36 150S 080E 4300730635 12856 State GW P CLAWSON SPRING ST A-3 36 150S 080E 4300730636 13001 State GW P CLAWSON SPRING ST A-4 36 150S 080E 4300730637 12844 State GW P CLAWSON SPRING ST D-5 31 150S 090E 4300730642 12852 State GW P CLAWSON SPRING ST D-6 31 150S 090E 4300730643 12847 State GW P CLAWSON SPRING ST D-7 31 150S 090E 4300730644 12849 State GW P HELPER FED A-5 23 130S 100E 4300730677 13010 Federal GW P HELPER FED B-15 28 130S 100E 4300730678 13346 Federal GW P HELPER FED B-16 28 130S 100E 4300730680 13203 Federal GW P HELPER FED C-2 24 130S 100E 4300730681 13016 Federal GW P HELPER FED C-7 21 130S 100E 4300730682 13012 Federal GW P HELPER FED C-7 21 130S 100E 4300730684 13204 Federal GW P HELPER FED D-9 25 130S 100E 4300730685 13245 Federal GW P HELPER FED D-10 25 130S 100E 4300730687 12992 Federal GW P HELPER FED D-11 25 130S 100E 4300730687 12992 Federal GW P HELPER FED D-11 25 130S 100E 4300730688 1300S Federal GW P HELPER FED D-11 25 130S 100E 4300730687 12992 Federal GW P HELPER FED D-10 P HELPER FED D-11 25 130S 100E 4300730688 1300S Federal GW P HELPER FED D-10 P HELPER FED D-10 P HELPER FED D-10 P HELPER FED D-11 P HELPER FED D-11		36	130S	100E	4300730598	12825	State	GW	P
CHUBBUCK A-2 06 140S 100E 4300730604 12648 Fee GW P CLAWSON SPRING ST A-2 36 150S 080E 4300730635 12856 State GW P CLAWSON SPRING ST A-3 36 150S 080E 4300730636 13001 State GW P CLAWSON SPRING ST A-4 36 150S 080E 4300730636 13001 State GW P CLAWSON SPRING ST D-5 31 150S 090E 4300730637 12844 State GW P CLAWSON SPRING ST D-6 31 150S 090E 4300730642 12852 State GW P CLAWSON SPRING ST D-7 31 150S 090E 4300730643 12847 State GW P CLAWSON SPRING ST D-7 31 150S 090E 4300730644 12849 State GW P HELPER FED A-5 23 130S 100E 4300730677 13010 Federal GW P HELPER FED B-15 28 130S 100E 4300730678 13346 Federal GW P HELPER FED B-16 28 130S 100E 4300730679 13015 Federal GW P HELPER FED C-2 24 130S 100E 4300730680 13203 Federal GW P HELPER FED C-4 24 130S 100E 4300730681 13016 Federal GW P HELPER FED C-7 21 130S 100E 4300730681 13016 Federal GW P HELPER FED C-7 21 130S 100E 4300730681 13012 Federal GW P HELPER FED D-9 25 130S 100E 4300730685 13245 Federal GW P HELPER FED D-10 25 130S 100E 4300730687 12992 Federal GW P HELPER FED D-10 25 130S 100E 4300730687 12992 Federal GW P HELPER FED D-11 25 130S 100E 4300730688 13005 Federal GW P HELPER FED D-12 25 130S 100E 4300730688 13005 Federal GW P		11	140S	100E	4300730603	12638	State	GW	P
CLAWSON SPRING ST A-2         36         150S         080E         4300730635         12856         State         GW         P           CLAWSON SPRING ST A-3         36         150S         080E         4300730636         13001         State         GW         P           CLAWSON SPRING ST A-4         36         150S         080E         4300730637         12844         State         GW         P           CLAWSON SPRING ST D-5         31         150S         090E         4300730642         12852         State         GW         P           CLAWSON SPRING ST D-6         31         150S         090E         4300730643         12847         State         GW         P           CLAWSON SPRING ST D-7         31         150S         090E         4300730644         12849         State         GW         P           HELPER FED A-5         23         130S         100E         4300730677         13010         Federal         GW         P           HELPER FED B-15         28         130S         100E         4300730679         13015         Federal         GW         P           HELPER FED C-2         24         130S         100E         4300730680         13203         Feder		06	140S	100E	4300730604	12648	Fee	GW	P
CLAWSON SPRING ST A-4         36         150S         080E         4300730637         12844         State         GW         P           CLAWSON SPRING ST D-5         31         150S         090E         4300730642         12852         State         GW         P           CLAWSON SPRING ST D-6         31         150S         090E         4300730643         12847         State         GW         P           CLAWSON SPRING ST D-7         31         150S         090E         4300730644         12849         State         GW         P           HELPER FED A-5         23         130S         100E         4300730677         13010         Federal         GW         P           HELPER FED A-7         22         130S         100E         4300730678         13346         Federal         GW         P           HELPER FED B-15         28         130S         100E         4300730679         13015         Federal         GW         P           HELPER FED B-16         28         130S         100E         4300730680         13203         Federal         GW         P           HELPER FED C-2         24         130S         100E         4300730681         13016         Federal		36	150S	080E	4300730635	12856	State	GW	P
CLAWSON SPRING ST A-4         36         150S         080E         4300730637         12844         State         GW         P           CLAWSON SPRING ST D-5         31         150S         090E         4300730642         12852         State         GW         P           CLAWSON SPRING ST D-6         31         150S         090E         4300730643         12847         State         GW         P           CLAWSON SPRING ST D-7         31         150S         090E         4300730644         12849         State         GW         P           HELPER FED A-5         23         130S         100E         4300730677         13010         Federal         GW         P           HELPER FED A-7         22         130S         100E         4300730678         13346         Federal         GW         P           HELPER FED B-16         28         130S         100E         4300730680         13203         Federal         GW         P           HELPER FED C-2         24         130S         100E         4300730681         13016         Federal         GW         P           HELPER FED C-7         21         130S         100E         4300730684         13204         Federal	CLAWSON SPRING ST A-3	36	150S	080E	4300730636	13001	State	GW	P
CLAWSON SPRING ST D-5         31         150S         090E         4300730642         12852         State         GW         P           CLAWSON SPRING ST D-6         31         150S         090E         4300730643         12847         State         GW         P           CLAWSON SPRING ST D-7         31         150S         090E         4300730644         12849         State         GW         P           HELPER FED A-5         23         130S         100E         4300730677         13010         Federal         GW         P           HELPER FED A-7         22         130S         100E         4300730678         13346         Federal         GW         P           HELPER FED B-15         28         130S         100E         4300730679         13015         Federal         GW         P           HELPER FED B-16         28         130S         100E         4300730680         13203         Federal         GW         P           HELPER FED C-2         24         130S         100E         4300730681         13016         Federal         GW         P           HELPER FED C-7         21         130S         100E         4300730684         13204         Federal		36	150S	080E	4300730637	12844	State	GW	P
CLAWSON SPRING ST D-7         31         150S         090E         4300730644         12849         State         GW         P           HELPER FED A-5         23         130S         100E         4300730677         13010         Federal         GW         P           HELPER FED A-7         22         130S         100E         4300730678         13346         Federal         GW         P           HELPER FED B-15         28         130S         100E         4300730679         13015         Federal         GW         P           HELPER FED B-16         28         130S         100E         4300730680         13203         Federal         GW         P           HELPER FED C-2         24         130S         100E         4300730681         13016         Federal         GW         P           HELPER FED C-7         21         130S         100E         4300730682         13012         Federal         GW         P           HELPER FED D-9         25         130S         100E         4300730685         13245         Federal         GW         P           HELPER FED D-10         25         130S         100E         4300730687         12992         Federal         GW<	CLAWSON SPRING ST D-5	31	150S	090E	4300730642	12852	State	GW	P
CLAWSON SPRING ST D-7         31         150S         090E         4300730644         12849         State         GW         P           HELPER FED A-5         23         130S         100E         4300730677         13010         Federal         GW         P           HELPER FED A-7         22         130S         100E         4300730678         13346         Federal         GW         P           HELPER FED B-15         28         130S         100E         4300730679         13015         Federal         GW         P           HELPER FED B-16         28         130S         100E         4300730680         13203         Federal         GW         P           HELPER FED C-2         24         130S         100E         4300730681         13016         Federal         GW         P           HELPER FED C-7         21         130S         100E         4300730684         13204         Federal         GW         P           HELPER FED D-9         25         130S         100E         4300730685         13245         Federal         GW         P           HELPER FED D-10         25         130S         100E         4300730686         12993         Federal         GW<	CLAWSON SPRING ST D-6	31	150S	090E	4300730643	12847	State	GW	P
HELPER FED A-7 HELPER FED B-15 100E HELPER FED B-15 100E HELPER FED B-16 100E HELPER FED C-2 100E HELPER FED C-4 HELPER FED C-4 HELPER FED C-7 1130S 100E HELPER FED B-16 130S 100E HELPER FED B-16 130S 100E HELPER FED B-16 HELPER FED B	CLAWSON SPRING ST D-7	31	150S	090E	4300730644	12849	State	GW	P
HELPER FED B-15  28 130S 100E 4300730679 13015 Federal GW P HELPER FED B-16  28 130S 100E 4300730680 13203 Federal GW P HELPER FED C-2  24 130S 100E 4300730681 13016 Federal GW P HELPER FED C-4  24 130S 100E 4300730682 13012 Federal GW P HELPER FED C-7  21 130S 100E 4300730684 13204 Federal GW P HELPER FED D-9  25 130S 100E 4300730685 13245 Federal GW P HELPER FED D-10  25 130S 100E 4300730686 12993 Federal GW P HELPER FED D-11  25 130S 100E 4300730687 12992 Federal GW P HELPER FED D-12  25 130S 100E 4300730688 13005 Federal GW P	HELPER FED A-5	23	130S	100E	4300730677	13010	Federal	GW	
HELPER FED B-16  28 130S 100E 4300730680 13203 Federal GW P HELPER FED C-2  24 130S 100E 4300730681 13016 Federal GW P HELPER FED C-4  24 130S 100E 4300730682 13012 Federal GW P HELPER FED C-7  21 130S 100E 4300730684 13204 Federal GW P HELPER FED D-9  25 130S 100E 4300730685 13245 Federal GW P HELPER FED D-10  25 130S 100E 4300730686 12993 Federal GW P HELPER FED D-11  25 130S 100E 4300730687 12992 Federal GW P HELPER FED D-12  25 130S 100E 4300730688 13005 Federal GW P	HELPER FED A-7	22	130S	100E	4300730678	13346	Federal	GW	P
HELPER FED C-2  24 130S 100E 4300730681 13016 Federal GW P HELPER FED C-4  424 130S 100E 4300730682 13012 Federal GW P HELPER FED C-7  4300730684 13204 Federal GW P HELPER FED D-9  4300730685 13245 Federal GW P HELPER FED D-10  4300730686 12993 Federal GW P HELPER FED D-11  4300730687 12992 Federal GW P HELPER FED D-12  4300730688 13005 Federal GW P HELPER FED D-12  4300730688 13005 Federal GW P	HELPER FED B-15	28	130S	100E	4300730679	13015	Federal	GW	P
HELPER FED C-4       24       130S       100E       4300730682       13012       Federal       GW       P         HELPER FED C-7       21       130S       100E       4300730684       13204       Federal       GW       P         HELPER FED D-9       25       130S       100E       4300730685       13245       Federal       GW       P         HELPER FED D-10       25       130S       100E       4300730686       12993       Federal       GW       P         HELPER FED D-11       25       130S       100E       4300730687       12992       Federal       GW       P         HELPER FED D-12       25       130S       100E       4300730688       13005       Federal       GW       P	HELPER FED B-16	28	130S	100E	4300730680	13203	Federal	GW	P
HELPER FED C-7       21       130S       100E       4300730684       13204       Federal       GW       P         HELPER FED D-9       25       130S       100E       4300730685       13245       Federal       GW       P         HELPER FED D-10       25       130S       100E       4300730686       12993       Federal       GW       P         HELPER FED D-11       25       130S       100E       4300730687       12992       Federal       GW       P         HELPER FED D-12       25       130S       100E       4300730688       13005       Federal       GW       P	HELPER FED C-2	24	130S	100E	4300730681	13016	Federal	GW	
HELPER FED C-7       21       130S       100E       4300730684       13204       Federal       GW       P         HELPER FED D-9       25       130S       100E       4300730685       13245       Federal       GW       P         HELPER FED D-10       25       130S       100E       4300730686       12993       Federal       GW       P         HELPER FED D-11       25       130S       100E       4300730687       12992       Federal       GW       P         HELPER FED D-12       25       130S       100E       4300730688       13005       Federal       GW       P		24	130S	100E	4300730682	13012	Federal		
HELPER FED D-9       25       130S       100E       4300730685       13245       Federal       GW       P         HELPER FED D-10       25       130S       100E       4300730686       12993       Federal       GW       P         HELPER FED D-11       25       130S       100E       4300730687       12992       Federal       GW       P         HELPER FED D-12       25       130S       100E       4300730688       13005       Federal       GW       P		21	130S	100E	4300730684	13204	Federal	GW	
HELPER FED D-10       25       130S       100E       4300730686       12993       Federal       GW       P         HELPER FED D-11       25       130S       100E       4300730687       12992       Federal       GW       P         HELPER FED D-12       25       130S       100E       4300730688       13005       Federal       GW       P			130S	100E	4300730685	13245	Federal	GW	
HELPER FED D-11         25         130S         100E         4300730687         12992         Federal         GW         P           HELPER FED D-12         25         130S         100E         4300730688         13005         Federal         GW         P					4300730686	12993	Federal	GW	
HELPER FED D-12 25 130S 100E 4300730688 13005 Federal GW P				100E	4300730687	12992	Federal	GW	P
					4300730688	13005	Federal	GW	P
	HELPER FED E-4	29	130S	100E	4300730689	13229	Federal	GW	P

### Anadarko Petroleum Corporation (N0035) to Anadarko E&P Onshore, LLC (N3940) Effective 1-April-2013

						Lease	Well	Well
Well Name	Sec	Twnshp	Range	API	Entity No.	Type	Type	status
HELPER FED A-4	23	130S	100E	4300730692	13009	Federal	GW	P
HELPER FED C-5	24	130S	100E	4300730693	13013	Federal	GW	P
HELPER FED G-1	30	130S	11 <b>0</b> E	4300730694	13006	Federal	GW	P
HELPER FED G-2	30	130S	110E	4300730695	13007	Federal	GW	P
HELPER FED G-3	31	130S	11 <b>0</b> E	4300730696	13002	Federal	GW	P
HELPER FED G-4	31	130S	110E	4300730697	13003	Federal	GW	P
HELPER FED H-3	01	140S	100E	4300730698	12831	Federal	GW	P
HELPER FED H-4	01	140S	100E	4300730699	12833	Federal	GW	P
CLAWSON SPRING ST D-8	31	150S	090E	4300730701	12851	State	GW	P
HELPER FED C-3	24	130S	100E	4300730702	13011	Federal	GW	P
CLAWSON SPRING ST J-1	35	150S	080E	4300730726	13299	Fee	GW	P
PIERUCCI 1	35	150S	080E	4300730727	13325	Fee	GW	P
POTTER ETAL 1	35	150S	080E	4300730728	12958	Fee	GW	P
POTTER ETAL 2	35	150S	080E	4300730737	12959	Fee	GW	P
HELPER FED G-5	30	130S	110E	4300730770	13655	Federal	GW	P
HELPER FED G-6	30	130S	110E	4300730771	13656	Federal	GW	P
HELPER FED G-7	31	130S	110E	4300730772	13657	Federal	GW	P
HELPER FED G-8	31	130S	110E	4300730773	13658	Federal	GW	P
GOODALL A-1	06	140S	110E	4300730774	13348	Fee	GW	P
HELPER FED E-8	19	130S	100E	4300730776	13624	Federal	GW	P
HAUSKNECHT A-1	21	130S	100E	4300730781	13347	Fee	GW	P
HELPER FED E-9	19	130S	100E	4300730868	13628	Federal	GW	P
HELPER FED E-5	20	130S	100E	4300730869	13625	Federal	GW	P
HELPER FED E-6	20	130S	100E	4300730870	13631	Federal	GW	P
HELPER FED E-10	30	130S	100E	4300730871	13629	Federal	GW	P
SACCOMANNO A-1	30	130S	100E	4300730872	13622	Fee	GW	P
HELPER FED E-11	30	130S	100E	4300730873	13630	Federal	GW	P
BLACKHAWK A-2	29	130S	100E	4300730886	13783	Fee	GW	P
BLACKHAWK A-3	20	130S	100E	4300730914	13794	Fee	GW	P
BLACKHAWK A-4	21	130S	100E	4300730915	13795	Fee	GW	P
BLACKHAWK A-1X	20	130S	100E	4300730923	13798	Fee	GW	P
HELPER STATE 12-3	03	140S	100E	4300750070	17824	State	GW	P
HELPER STATE 32-3	03	140S	100E	4300750071	17827	State	GW	P
HELPER STATE 32-36	36	130S	100E	4300750072	17825	State	GW	P
VEA 32-32	32	130S	100E	4300750075	17826	Fee	GW	P
CLAWSON SPRING ST E-7	07	160S	090E	4301530392	12960	State	GW	P
CLAWSON SPRING ST E-8	07	160S	090E	4301530394	12964	State	GW	P
CLAWSON SPRING ST E-3	06	160S	090E	4301530403	12965	State	GW	P
CLAWSON SPRING ST E-1	06	160S	090E	4301530404	12966	State	GW	P
CLAWSON SPRING ST E-2	06	160S	090E	4301530405	12961	State	GW	P
CLAWSON SPRING ST E-4	06	160S	090E	4301530406	12962	State	GW	P
CLAWSON SPRING ST C-1	12	160S	080E	4301530410	12617	State	GW	P
CLAWSON SPRING ST B-1	01	160S	080E	4301530427	12845	State	GW	P
CLAWSON SPRING ST B-2	01	160S	080E	4301530428	12846	State	GW	P
CLAWSON SPRING ST B-3	01	160S	080E	4301530429		State	GW	P
CLAWSON SPRING ST B-4	01	160S	080E	4301530430		State	GW	P
CLAWSON SPRING ST B-5	12	160S	080E	4301530431	12963	State	GW	P
CLAWSON SPRING ST B-8	11	160S	080E	4301530432		State	GW	P
CLAWSON SPRING ST B-9	11	160S	080E	4301530433		State	GW	P
CLAWSON SPRING ST C-2	12	160S	080E	4301530434	12850	State	GW	P

### Anadarko Petroleum Corporation (N0035) to Anadarko E&P Onshore, LLC (N3940) Effective1-April-2013

Name							Lease	Well	Well
CLAWSON SPRING ST B-7         11         Ioos         80BE         4301530460         12967         State         GW         P           CLAWSON SPRING ST C-6         14         160S         080E         4301530461         13355         State         GW         P           CLAWSON SPRING ST C-3         12         160S         080E         4301530463         12968         State         GW         P           CLAWSON SPRING ST B-6         11         160S         080E         4301530466         13323         State         GW         P           CLAWSON SPRING ST IP-2         13         160S         080E         4301530466         13233         State         GW         P           CLAWSON SPRING ST IP-2         13         160S         080E         4301530467         12955         State         GW         P           CLAWSON SPRING ST IP-2         15         160S         080E         4301530467         12957         State         GW         P           CLAWSON SPRING ST IP-2         15         160S         080E         4301530472         12200         Fee         GW         P           CLAWSON SPRING ST F-1         03         160S         080E         4301530472         132182 <th>Well Name</th> <th>Sec</th> <th>Twnshp</th> <th>Range</th> <th>API</th> <th>Entity No.</th> <th>Type</th> <th>Type</th> <th>status</th>	Well Name	Sec	Twnshp	Range	API	Entity No.	Type	Type	status
CLAWSON SPRING ST C-6         14         160S         080E         4301530461         13355         State         GW         P           CLAWSON SPRING ST C-3         12         160S         080E         4301530463         12968         State         GW         P           CLAWSON SPRING ST B-6         11         160S         080E         4301530465         12969         State         GW         P           CLAWSON SPRING ST H-1         13         160S         080E         4301530467         12955         State         GW         P           CLAWSON SPRING ST IPA-1         10         160S         080E         4301530468         12956         Fee         GW         P           CLAWSON SPRING ST IPA-2         15         160S         080E         4301530469         13200         Fee         GW         P           CLAWSON SPRING ST E-5         07         160S         090E         4301530470         12971         State         GW         P           CLAWSON SPRING ST F-2         03         160S         080E         4301530471         13014         State         GW         P           CLAWSON SPRING ST F-1         03         160S         080E         4301530473         1322S	CLAWSON SPRING ST C-4	14	160S	080E	4301530435	13199	State	GW	
CLAWSON SPRING ST C-3         12         160S         080E         4301530463         12968         State         GW         P           CLAWSON SPRING ST B-6         11         160S         080E         4301530465         12969         State         GW         P           CLAWSON SPRING ST H-1         13         160S         080E         4301530466         12955         State         GW         P           CLAWSON SPRING ST IPA-1         10         160S         080E         4301530467         12955         State         GW         P           CLAWSON SPRING ST IPA-2         15         160S         080E         4301530468         12956         Fee         GW         P           CLAWSON SPRING ST IPA-2         15         160S         090E         4301530470         13200         Fee         GW         P           CLAWSON SPRING ST G-1         02         160S         080E         4301530471         13014         State         GW         P           CLAWSON SPRING ST F-2         03         160S         080E         4301530472         13228         State         GW         P           CLAWSON SPRING ST G-2         02         160S         080E         4301530473         13052	CLAWSON SPRING ST B-7	11	160S	080E	4301530460	12967	State	GW	
CLAWSON SPRING ST B-6         11         160S         080E         4301530465         12969         State         GW         P           CLAWSON SPRING ST H-1         13         160S         080E         4301530467         12955         State         GW         P           CLAWSON SPRING ST IPA-1         10         160S         080E         4301530467         12955         State         GW         P           CLAWSON SPRING ST IPA-2         15         160S         080E         4301530468         12956         Fee         GW         P           CLAWSON SPRING ST IPA-2         15         160S         080E         4301530469         13200         Fee         GW         P           CLAWSON SPRING ST IPA-2         15         160S         080E         4301530470         12971         State         GW         P           CLAWSON SPRING ST G-1         02         160S         080E         4301530471         13014         State         GW         P           CLAWSON SPRING ST F-2         03         160S         080E         4301530473         13278         State         GW         P           CLAWSON SPRING ST G-2         02         160S         080E         4301530472         12957 <td>CLAWSON SPRING ST C-6</td> <td>14</td> <td>160S</td> <td>080E</td> <td>4301530461</td> <td>13355</td> <td>State</td> <td></td> <td></td>	CLAWSON SPRING ST C-6	14	160S	080E	4301530461	13355	State		
CLAWSON SPRING ST H-1 13 160S 080E 4301530466 13323 State GW P CLAWSON SPRING ST H-2 13 160S 080E 4301530467 12955 State GW P CLAWSON SPRING ST IPA-1 10 160S 080E 4301530467 12955 State GW P CLAWSON SPRING ST IPA-2 15 160S 080E 4301530469 13200 Fee GW P CLAWSON SPRING ST IPA-2 15 160S 080E 4301530470 12971 State GW P CLAWSON SPRING ST E-5 07 160S 090E 4301530470 12971 State GW P CLAWSON SPRING ST E-1 02 160S 080E 4301530471 13014 State GW P CLAWSON SPRING ST F-2 03 160S 080E 4301530472 13282 State GW P CLAWSON SPRING ST F-1 03 160S 080E 4301530472 13282 State GW P CLAWSON SPRING ST F-1 03 160S 080E 4301530473 13278 State GW P CLAWSON SPRING ST E-6 07 160S 090E 4301530474 13052 State GW P CLAWSON SPRING ST G-2 02 160S 080E 4301530474 13052 State GW P CLAWSON SPRING ST G-2 02 160S 080E 4301530475 12957 State GW P CLAWSON SPRING ST K-1 02 160S 080E 4301530475 12957 State GW P CLAWSON SPRING ST K-1 02 160S 080E 4301530488 13201 State GW P CLAWSON SPRING ST K-1 02 160S 080E 4301530489 13202 State GW P SHIMMIN TRUST 3 14 120S 100E 4300730119 11096 Fee GW PA SHIMMIN TRUST 1 11 120S 100E 4300730120 11096 Fee GW PA SHIMMIN TRUST 2 14 120S 100E 4300730121 11096 Fee GW PA SHIMMIN TRUST 4 11 120S 100E 4300730121 11096 Fee GW PA SHIMMIN TRUST 4 11 120S 100E 4300730122 11096 Fee GW PA ST 9-16 16 120S 100E 4300730132 11402 State GW PA ST 9-16 16 120S 100E 4300730132 11402 State GW PA ST 9-16 16 16 120S 100E 4300730133 11399 State GW PA SLEMAKER A-1 120S 100E 4300730161 11403 Fee GW PA SLEMAKER A-1 10 120S 100E 4300730168 11441 Fee GW PA SLEMAKER A-1 120S 100E 4300730168 11441 Fee GW PA SLEMAKER A-1 120S 100E 4300730168 11440 Fee GW PA SLEMAKER A-1 11 120S 100E 4300730168 11440 Fee GW PA SLEMAKER A-1 11 120S 100E 4300730168 11407 Fee GW PA SLEMAKER A-1 11 120S 100E 4300730168 11407 Fee GW PA SLEMAKER A-1 11 120S 100E 4300730168 11407 Fee GW PA SLEMAKER A-1 11 120S 100E 4300730168 11407 Fee GW PA SLEMAKER A-1 11 120S 100E 4300730168 11407 Fee GW PA SLEMAKER A-1 11 120S 100E 4300730168 11407 Fee GW PA SLEMAKER A-1 11 120S 100E 4	CLAWSON SPRING ST C-3	12	160S	080E	4301530463	12968	State	GW	
CLAWSON SPRING ST H-2 13 160S 080E 4301530467 12955 State GW P CLAWSON SPRING ST IPA-1 10 160S 080E 4301530468 12956 Fee GW P CLAWSON SPRING ST IPA-2 15 160S 080E 4301530469 13200 Fee GW P CLAWSON SPRING ST E-5 07 160S 090E 4301530470 12971 State GW P CLAWSON SPRING ST G-1 02 160S 080E 4301530471 13014 State GW P CLAWSON SPRING ST F-2 03 160S 080E 4301530472 13282 State GW P CLAWSON SPRING ST F-1 03 160S 080E 4301530472 13282 State GW P CLAWSON SPRING ST F-1 03 160S 080E 4301530473 13278 State GW P CLAWSON SPRING ST F-6 07 160S 090E 4301530473 13278 State GW P CLAWSON SPRING ST G-1 02 160S 080E 4301530474 13052 State GW P CLAWSON SPRING ST G-2 02 160S 080E 4301530475 12957 State GW P CLAWSON SPRING ST K-1 02 160S 080E 4301530488 13201 State GW P CLAWSON SPRING ST K-1 02 160S 080E 4301530488 13201 State GW P CLAWSON SPRING ST K-1 02 160S 080E 4301530489 13202 State GW P SHIMMIN TRUST 3 14 120S 100E 4300730119 11096 Fee GW PA SHIMMIN TRUST 1 11 120S 100E 4300730120 11096 Fee GW PA SHIMMIN TRUST 1 11 120S 100E 4300730121 11096 Fee GW PA SHIMMIN TRUST 4 11 120S 100E 4300730123 11096 Fee GW PA ST 9-16 16 120S 100E 4300730132 11402 State GW PA ST 9-16 16 120S 100E 4300730132 11402 State GW PA ST 9-16 16 120S 100E 4300730133 11399 State GW PA ST 9-16 16 120S 100E 4300730131 11096 Fee GW PA ST 9-16 16 120S 100E 4300730131 11096 Fee GW PA ST 9-16 16 120S 100E 4300730131 11096 Fee GW PA ST 9-16 16 120S 100E 4300730131 11096 Fee GW PA ST 9-16 16 120S 100E 4300730163 11402 State GW PA ST 9-16 16 120S 100E 4300730163 11407 Fee GW PA SLEMAKER A-1 05 120S 120E 4300730165 11407 Fee GW PA SLEMAKER A-1 10 120S 100E 4300730168 11410 Fee GW PA SLEMSEN 16-10 10 120S 100E 4300730168 11410 Fee GW PA SLEMSEN 11-15 15 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 1-12 12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 1-12 12 120S 100E 4300730188 11503 Fee GW PA SHIMMIN TRUST 1-1 11 120S 120E 4300730188 11503 Fee GW PA BRYNER A-1	CLAWSON SPRING ST B-6	11	160S	080E	4301530465	12969	State		
CLAWSON SPRING ST IPA-1 10 160S 080E 4301530468 12956 Fee GW P CLAWSON SPRING ST IPA-2 15 160S 080E 4301530469 13200 Fee GW P CLAWSON SPRING ST E-5 07 160S 090E 4301530470 12971 State GW P CLAWSON SPRING ST G-1 02 160S 080E 4301530471 13014 State GW P CLAWSON SPRING ST F-2 03 160S 080E 4301530471 13014 State GW P CLAWSON SPRING ST F-1 03 160S 080E 4301530473 13282 State GW P CLAWSON SPRING ST F-1 03 160S 080E 4301530473 13278 State GW P CLAWSON SPRING ST G-2 02 160S 080E 4301530474 13052 State GW P CLAWSON SPRING ST G-2 02 160S 080E 4301530474 13052 State GW P CLAWSON SPRING ST M-1 02 160S 080E 4301530475 12957 State GW P CLAWSON SPRING ST K-1 02 160S 080E 4301530488 13201 State GW P CLAWSON SPRING ST K-1 02 160S 080E 4301530488 13201 State GW P SHIMMIN TRUST 3 14 120S 100E 4300730119 11096 Fee GW PA SHIMMIN TRUST 1 11 120S 100E 4300730120 11096 Fee GW PA SHIMMIN TRUST 2 14 120S 100E 4300730121 11096 Fee GW PA SHIMMIN TRUST 4 11 120S 100E 4300730123 11096 Fee GW PA SHIMMIN TRUST 4 11 120S 100E 4300730133 11399 State GW PA ST 9-16 16 120S 100E 4300730133 11399 State GW PA ST 9-16 16 16 120S 100E 4300730131 11402 State GW PA ST 9-16 16 120S 100E 4300730133 11399 State GW PA ST 9-16 16 16 120S 100E 4300730133 11399 State GW PA ST 9-16 16 120S 100E 4300730133 11399 State GW PA ST 9-16 10 120S 100E 4300730165 11407 Fee GW PA SLEMAKER A-1 14 120S 100E 4300730165 11407 Fee GW PA SLEMAKER A-1 15 15 120S 100E 4300730165 11407 Fee GW PA SLEMAKER A-1 11 120S 100E 4300730165 11407 Fee GW PA SLEMAKER A-1 11 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN T	CLAWSON SPRING ST H-1	13	160S	080E	4301530466	13323	State	GW	
CLAWSON SPRING ST IPA-2 15 160S 080E 4301530469 13200 Fee GW P CLAWSON SPRING ST E-5 07 160S 090E 4301530470 12971 State GW P CLAWSON SPRING ST G-1 02 160S 080E 4301530471 13014 State GW P CLAWSON SPRING ST G-1 03 160S 080E 4301530471 13014 State GW P CLAWSON SPRING ST F-2 03 160S 080E 4301530472 13282 State GW P CLAWSON SPRING ST F-1 03 160S 080E 4301530473 13278 State GW P CLAWSON SPRING ST E-6 07 160S 090E 4301530473 13278 State GW P CLAWSON SPRING ST G-2 02 160S 080E 4301530474 13052 State GW P CLAWSON SPRING ST G-2 02 160S 080E 4301530475 12957 State GW P CLAWSON SPRING ST M-1 02 160S 080E 4301530478 13052 State GW P CLAWSON SPRING ST M-1 02 160S 080E 4301530488 13201 State GW P CLAWSON SPRING ST K-1 02 160S 080E 4301530488 13201 State GW P SHIMMIN TRUST 3 14 120S 100E 4300730119 11096 Fee GW P A SHIMMIN TRUST 1 11 120S 100E 4300730112 11096 Fee GW P A SHIMMIN TRUST 1 11 120S 100E 4300730120 11096 Fee GW P A SHIMMIN TRUST 4 11 120S 100E 4300730121 11096 Fee GW P A ST 9-16 16 120S 100E 4300730132 11096 Fee GW P A ST 9-16 16 120S 100E 4300730132 11096 Fee GW P A ST 2-16 16 120S 100E 4300730132 11096 Fee GW P A ST 2-16 16 120S 100E 4300730131 11399 State GW P A ST 2-16 16 120S 100E 4300730131 11096 Fee GW P A ST 2-16 16 120S 100E 4300730131 11273 State GW P A ST 2-16 16 120S 100E 4300730131 11273 State GW P A ST 2-16 16 120S 100E 4300730131 11273 State GW P A ST 2-16 16 120S 100E 4300730161 11402 State GW P A ST 2-16 10 10 120S 100E 4300730161 11403 Fee GW P A ST 2-16 10 10 120S 100E 4300730161 11403 Fee GW P A ST 2-16 10 10 120S 100E 4300730165 11407 Fee GW P A SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW P A SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW P A SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW P A SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW P A SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW P A SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW P A SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW P A SHIMMIN TRUST 12-12 12 120S	CLAWSON SPRING ST H-2	13	160S	080E	4301530467	12955	State		
CLAWSON SPRING ST E-5         07         160S         090E         4301530470         12971         State         GW         P           CLAWSON SPRING ST G-1         02         160S         080E         4301530471         13014         State         GW         P           CLAWSON SPRING ST F-2         03         160S         080E         4301530472         13282         State         GW         P           CLAWSON SPRING ST F-1         03         160S         080E         4301530473         13278         State         GW         P           CLAWSON SPRING ST E-6         07         160S         090E         4301530474         13052         State         GW         P           CLAWSON SPRING ST G-2         02         160S         080E         4301530475         12957         State         GW         P           CLAWSON SPRING ST K-1         02         160S         080E         4301530488         13201         State         GW         P           CLAWSON SPRING ST K-1         02         160S         080E         4301530489         13202         State         GW         P           SHIMMIN TRUST 3         14         120S         100E         4300730119         11096	CLAWSON SPRING ST IPA-1	10	160S	080E	4301530468	12956	Fee		
CLAWSON SPRING ST G-1 02 160S 080E 4301530471 13014 State GW P CLAWSON SPRING ST F-2 03 160S 080E 4301530472 13282 State GW P CLAWSON SPRING ST F-1 03 160S 080E 4301530473 13278 State GW P CLAWSON SPRING ST E-6 07 160S 090E 4301530474 13052 State GW P CLAWSON SPRING ST G-2 02 160S 080E 4301530474 13052 State GW P CLAWSON SPRING ST G-2 02 160S 080E 4301530475 12957 State GW P CLAWSON SPRING ST M-1 02 160S 080E 4301530488 13201 State GW P CLAWSON SPRING ST K-1 02 160S 080E 4301530488 13201 State GW P SHIMMIN TRUST 3 14 120S 100E 4300730119 11096 Fee GW PA SHIMMIN TRUST 1 11 120S 100E 4300730120 11096 Fee GW PA SHIMMIN TRUST 2 14 120S 100E 4300730121 11096 Fee GW PA SHIMMIN TRUST 4 11 120S 100E 4300730123 11096 Fee GW PA ST 9-16 16 120S 100E 4300730132 11096 Fee GW PA ST 2-16 16 120S 100E 4300730132 11096 Fee GW PA ST 2-16 16 120S 100E 4300730133 11399 State GW PA ST 2-16 16 120S 100E 4300730141 11273 State GW PA SLEMAKER A-1 14 120S 090E 4300730141 11273 State GW PA SLEMAKER A-1 15 120S 100E 4300730165 11407 Fee GW PA SLEMAKER A-1 10 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 130S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 13	CLAWSON SPRING ST IPA-2	15	160S	<b>080</b> E	4301530469	13200	Fee		
CLAWSON SPRING ST F-2 03 160S 080E 4301530472 13282 State GW P CLAWSON SPRING ST F-1 03 160S 080E 4301530473 13278 State GW P CLAWSON SPRING ST E-6 07 160S 090E 4301530474 13052 State GW P CLAWSON SPRING ST G-2 02 160S 080E 4301530475 12957 State GW P CLAWSON SPRING ST M-1 02 160S 080E 4301530475 12957 State GW P CLAWSON SPRING ST M-1 02 160S 080E 4301530488 13201 State GW P CLAWSON SPRING ST K-1 02 160S 080E 4301530488 13201 State GW P CLAWSON SPRING ST K-1 11 120S 100E 4300730119 11096 Fee GW PA SHIMMIN TRUST 1 11 120S 100E 4300730120 11096 Fee GW PA SHIMMIN TRUST 1 11 120S 100E 4300730121 11096 Fee GW PA SHIMMIN TRUST 2 14 120S 100E 4300730123 11096 Fee GW PA ST 9-16 16 120S 100E 4300730123 11096 Fee GW PA ST 9-16 16 120S 100E 4300730132 11402 State GW PA ST 2-16 16 120S 100E 4300730132 11402 State GW PA ST 2-16 16 120S 100E 4300730133 11399 State GW PA ST 2-16 16 120S 100E 4300730131 11273 State GW PA ST 2-16 16 120S 100E 4300730161 11402 Fee GW PA ST 2-16 16 120S 100E 4300730161 11407 Fee GW PA SLEMAKER A-1 05 120S 120E 4300730161 11403 Fee GW PA JENSEN 16-10 10 120S 100E 4300730161 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730168 11503 Fee GW PA BRYNER A-1 11 120S 120E 4300730188 11503 Fee GW PA BRYNER A-1 11 120S 120E 4300730188 11503 Fee GW PA BRYNER A-1 11 120S 120E 4300730185 13798 Fee D PA BLACKHAWK A-5H 20 130S 100E 4300731402 17029 Fee D PA	CLAWSON SPRING ST E-5	07	160S	090E	4301530470	12971	State	GW	P
CLAWSON SPRING ST F-1 03 160S 080E 4301530473 13278 State GW P CLAWSON SPRING ST E-6 07 160S 090E 4301530474 13052 State GW P CLAWSON SPRING ST G-2 02 160S 080E 4301530475 12957 State GW P CLAWSON SPRING ST M-1 02 160S 080E 4301530488 13201 State GW P CLAWSON SPRING ST M-1 02 160S 080E 4301530488 13201 State GW P CLAWSON SPRING ST K-1 02 160S 080E 4301530488 13202 State GW P SHIMMIN TRUST 3 14 120S 100E 4300730119 11096 Fee GW PA SHIMMIN TRUST 1 11 120S 100E 4300730120 11096 Fee GW PA SHIMMIN TRUST 2 14 120S 100E 4300730121 11096 Fee GW PA SHIMMIN TRUST 4 11 120S 100E 4300730123 11096 Fee GW PA ST 9-16 16 120S 100E 4300730132 11402 State GW PA ST 9-16 16 120S 100E 4300730132 11402 State GW PA ST 2-16 16 120S 100E 4300730133 11399 State GW PA ST 2-16 16 120S 100E 4300730133 11399 State GW PA ST 2-16 16 120S 100E 4300730141 11273 State GW PA ST 2-16 10 10 120S 100E 4300730161 11403 Fee GW PA SIEMAKER A-1 105 120S 100E 4300730161 11403 Fee GW PA SIEMAKER A-1 15 120S 100E 4300730165 11407 Fee GW PA SIEMAKER A-1 15 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 120S 100E 43	CLAWSON SPRING ST G-1	02	160S	080E	4301530471	13014	State		
CLAWSON SPRING ST E-6 07 160S 090E 4301530474 13052 State GW P CLAWSON SPRING ST G-2 02 160S 080E 4301530475 12957 State GW P CLAWSON SPRING ST M-1 02 160S 080E 4301530488 13201 State GW P CLAWSON SPRING ST M-1 02 160S 080E 4301530488 13201 State GW P CLAWSON SPRING ST K-1 02 160S 080E 4301530489 13202 State GW P SHIMMIN TRUST 3 14 120S 100E 4300730119 11096 Fee GW PA SHIMMIN TRUST 1 11 120S 100E 4300730120 11096 Fee GW PA SHIMMIN TRUST 2 14 120S 100E 4300730121 11096 Fee GW PA SHIMMIN TRUST 4 11 120S 100E 4300730123 11096 Fee GW PA ST 9-16 16 120S 100E 4300730132 11402 State GW PA ST 2-16 16 120S 100E 4300730132 11402 State GW PA ST 2-16 16 120S 100E 4300730133 11399 State GW PA MATTS SUMMIT ST A-1 14 120S 090E 4300730141 11273 State GW PA SLEMAKER A-1 05 120S 120E 4300730158 11441 Fee GW PA JENSEN 16-10 10 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730168 11420 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730168 11420 Fee GW PA BRYNER A-1 11 120S 120E 4300730168 11420 Fee GW PA BRYNER A-1 11 120S 120E 4300730168 11420 Fee GW PA BRYNER A-1 11 120S 120E 4300730168 11420 Fee GW PA BRYNER A-1X (RIG SKID) 11 120S 120E 4300730168 11503 Fee GW PA BRYNER A-1X (RIG SKID) 11 120S 120E 4300730209 11503 Fee GW PA BLACKHAWK A-5H 20 130S 100E 4300730185 13798 Fee D PA BLACKHAWK A-5H 20 130S 100E 4300731402 17029 Fee D PA	CLAWSON SPRING ST F-2	03	160S	080E	4301530472	13282	State		
CLAWSON SPRING ST G-2 02 160S 080E 4301530475 12957 State GW P CLAWSON SPRING ST M-1 02 160S 080E 4301530488 13201 State GW P CLAWSON SPRING ST K-1 02 160S 080E 4301530488 13202 State GW P SHIMMIN TRUST 3 14 120S 100E 4300730119 11096 Fee GW PA SHIMMIN TRUST 1 11 120S 100E 4300730120 11096 Fee GW PA SHIMMIN TRUST 2 14 120S 100E 4300730121 11096 Fee GW PA SHIMMIN TRUST 4 11 120S 100E 4300730123 11096 Fee GW PA SHIMMIN TRUST 4 11 120S 100E 4300730123 11096 Fee GW PA ST 9-16 16 120S 100E 4300730132 11402 State GW PA ST 9-16 16 120S 100E 4300730132 11402 State GW PA ST 2-16 16 120S 100E 4300730133 11399 State GW PA MATTS SUMMIT ST A-1 14 120S 090E 4300730141 11273 State GW PA SLEMAKER A-1 05 120S 120E 4300730158 11441 Fee GW PA JENSEN 16-10 10 120S 100E 4300730161 11403 Fee GW PA JENSEN 7-15 15 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730175 11425 Fee GW PA BRYNER A-1 11 120S 120E 4300730175 11425 Fee GW PA BRYNER A-1 (11 120S 120E 4300730188 11503 Fee GW PA BRYNER A-1 (11 120S 120E 4300730188 11503 Fee GW PA BRYNER A-1 (11 120S 120E 4300730188 11503 Fee GW PA BRYNER A-1X (RIG SKID) 11 120S 120E 4300730209 11503 Fee GW PA BLACKHAWK A-5H 20 130S 100E 4300730885 13798 Fee D PA BLACKHAWK A-5H 20 130S 100E 4300731402 17029 Fee D PA	CLAWSON SPRING ST F-1	03	160S	080E	4301530473	13278	State		
CLAWSON SPRING ST M-1	CLAWSON SPRING ST E-6	07	160S	090E	4301530474	13052	State		
CLAWSON SPRING ST K-1  O2 160S  O80E  4301530489  13202  State  GW  P  SHIMMIN TRUST 3  14 120S  100E  4300730119  11096  Fee  GW  PA  SHIMMIN TRUST 1  11 120S  100E  4300730120  11096  Fee  GW  PA  SHIMMIN TRUST 2  14 120S  100E  4300730121  11096  Fee  GW  PA  SHIMMIN TRUST 4  11 120S  100E  4300730121  11096  Fee  GW  PA  SHIMMIN TRUST 4  11 120S  100E  4300730123  11096  Fee  GW  PA  ST 9-16  16 120S  100E  4300730132  11402  State  GW  PA  ST 2-16  16 120S  100E  4300730133  11399  State  GW  PA  MATTS SUMMIT ST A-1  14 120S  090E  4300730141  11273  State  GW  PA  SLEMAKER A-1  05 120S  120E  4300730158  11441  Fee  GW  PA  JENSEN 16-10  10 120S  100E  4300730161  11403  Fee  GW  PA  SHIMMIN TRUST 12-12  12 120S  100E  4300730165  11407  Fee  GW  PA  SHIMMIN TRUST 12-12  12 120S  100E  4300730168  11420  Fee  GW  PA  BRYNER A-1  11 120S  120E  4300730175  11425  Fee  GW  PA  BRYNER A-1  11 120S  120E  4300730188  11503  Fee  GW  PA  BRYNER A-1X (RIG SKID)  11 120S  120E  4300730885  13798  Fee  D  PA  BLACKHAWK A-5H  20 130S  100E  4300731402  17029  Fee  D  PA	CLAWSON SPRING ST G-2	02	160S	080E	4301530475	12957	State		
SHIMMIN TRUST 3         14         120S         100E         4300730119         11096         Fee         GW         PA           SHIMMIN TRUST 1         11         120S         100E         4300730120         11096         Fee         GW         PA           SHIMMIN TRUST 2         14         120S         100E         4300730121         11096         Fee         GW         PA           SHIMMIN TRUST 4         11         120S         100E         4300730123         11096         Fee         GW         PA           SHIMMIN TRUST 4         11         120S         100E         4300730123         11096         Fee         GW         PA           ST 9-16         16         120S         100E         4300730132         11402         State         GW         PA           ST 2-16         16         120S         100E         4300730133         11399         State         GW         PA           MATTS SUMMIT ST A-1         14         120S         090E         4300730141         11273         State         GW         PA           JENSEN 16-10         10         120S         100E         4300730158         11441         Fee         GW         PA	CLAWSON SPRING ST M-1	02	160S	080E	4301530488	13201	State		
SHIMMIN TRUST 1 11 120S 100E 4300730120 11096 Fee GW PA SHIMMIN TRUST 2 14 120S 100E 4300730121 11096 Fee GW PA SHIMMIN TRUST 4 11 120S 100E 4300730123 11096 Fee GW PA ST 9-16 16 120S 100E 4300730132 11402 State GW PA ST 2-16 16 120S 100E 4300730133 11399 State GW PA MATTS SUMMIT ST A-1 14 120S 090E 4300730141 11273 State GW PA SLEMAKER A-1 05 120S 120E 4300730158 11441 Fee GW PA JENSEN 16-10 10 120S 100E 4300730161 11403 Fee GW PA JENSEN 7-15 15 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730168 11420 Fee GW PA JENSEN 11-15 15 120S 100E 4300730165 11407 Fee GW PA BRYNER A-1 11 120S 120E 4300730175 11425 Fee GW PA BRYNER A-1 11 120S 120E 4300730188 11503 Fee GW PA BRYNER A-1X (RIG SKID) 11 120S 120E 4300730209 11503 Fee GW PA BLACKHAWK A-1 20 130S 100E 4300730885 13798 Fee D PA BLACKHAWK A-5H 20 130S 100E 4300731402 17029 Fee D PA	CLAWSON SPRING ST K-1	02	160S	080E	4301530489	13202	State		
SHIMMIN TRUST 2 14 120S 100E 4300730121 11096 Fee GW PA SHIMMIN TRUST 4 11 120S 100E 4300730123 11096 Fee GW PA ST 9-16 16 120S 100E 4300730132 11402 State GW PA ST 2-16 16 120S 100E 4300730133 11399 State GW PA MATTS SUMMIT ST A-1 14 120S 090E 4300730141 11273 State GW PA SLEMAKER A-1 05 120S 120E 4300730158 11441 Fee GW PA JENSEN 16-10 10 120S 100E 4300730161 11403 Fee GW PA JENSEN 7-15 15 120S 100E 4300730165 11407 Fee GW PA SHIMMIN TRUST 12-12 12 120S 100E 4300730168 11420 Fee GW PA JENSEN 11-15 15 120S 100E 4300730165 11407 Fee GW PA BRYNER A-1 11 120S 120E 4300730175 11425 Fee GW PA BRYNER A-1 11 120S 120E 4300730188 11503 Fee GW PA BRYNER A-1X (RIG SKID) 11 120S 120E 4300730209 11503 Fee GW PA BLACKHAWK A-1 20 130S 100E 4300730885 13798 Fee D PA BLACKHAWK A-5H 20 130S 100E 4300731402 17029 Fee D PA	SHIMMIN TRUST 3	14	120S	100E	4300730119	11096	Fee		
SHIMMIN TRUST 4         11         120S         100E         4300730123         11096         Fee         GW         PA           ST 9-16         16         120S         100E         4300730132         11402         State         GW         PA           ST 2-16         16         120S         100E         4300730133         11399         State         GW         PA           MATTS SUMMIT ST A-1         14         120S         090E         4300730141         11273         State         GW         PA           SLEMAKER A-1         05         120S         120E         4300730158         11441         Fee         GW         PA           JENSEN 16-10         10         120S         100E         4300730161         11403         Fee         GW         PA           JENSEN 7-15         15         120S         100E         4300730165         11407         Fee         GW         PA           SHIMMIN TRUST 12-12         12         120S         100E         4300730168         11420         Fee         GW         PA           JENSEN 11-15         15         120S         100E         4300730175         11425         Fee         GW         PA <tr< td=""><td>SHIMMIN TRUST 1</td><td>11</td><td>120S</td><td>100E</td><td>4300730120</td><td>11096</td><td>Fee</td><td></td><td></td></tr<>	SHIMMIN TRUST 1	11	120S	100E	4300730120	11096	Fee		
ST 9-16         16         120S         100E         4300730132         11402         State         GW         PA           ST 2-16         16         120S         100E         4300730133         11399         State         GW         PA           MATTS SUMMIT ST A-1         14         120S         090E         4300730141         11273         State         GW         PA           SLEMAKER A-1         05         120S         120E         4300730158         11441         Fee         GW         PA           JENSEN 16-10         10         120S         100E         4300730161         11403         Fee         GW         PA           JENSEN 7-15         15         120S         100E         4300730165         11407         Fee         GW         PA           SHIMMIN TRUST 12-12         12         120S         100E         4300730168         11420         Fee         GW         PA           JENSEN 11-15         15         120S         100E         4300730175         11425         Fee         GW         PA           BRYNER A-1         11         120S         120E         4300730188         11503         Fee         GW         PA	SHIMMIN TRUST 2	14	120S	100E	4300730121	11096	Fee	GW	PA
ST 2-16         16         120S         100E         4300730133         11399         State         GW         PA           MATTS SUMMIT ST A-1         14         120S         090E         4300730141         11273         State         GW         PA           SLEMAKER A-1         05         120S         120E         4300730158         11441         Fee         GW         PA           JENSEN 16-10         10         120S         100E         4300730161         11403         Fee         GW         PA           JENSEN 7-15         15         120S         100E         4300730165         11407         Fee         GW         PA           SHIMMIN TRUST 12-12         12         120S         100E         4300730168         11420         Fee         GW         PA           JENSEN 11-15         15         120S         100E         4300730175         11425         Fee         GW         PA           BRYNER A-1         11         120S         120E         4300730188         11503         Fee         GW         PA           BLACKHAWK A-1         20         130S         100E         4300730885         13798         Fee         D         PA	SHIMMIN TRUST 4	11	120S	100E	4300730123	11096	Fee		
MATTS SUMMIT ST A-1         14         120S         090E         4300730141         11273         State         GW         PA           SLEMAKER A-1         05         120S         120E         4300730158         11441         Fee         GW         PA           JENSEN 16-10         10         120S         100E         4300730161         11403         Fee         GW         PA           JENSEN 7-15         15         120S         100E         4300730165         11407         Fee         GW         PA           SHIMMIN TRUST 12-12         12         120S         100E         4300730168         11420         Fee         GW         PA           JENSEN 11-15         15         120S         100E         4300730175         11425         Fee         GW         PA           BRYNER A-1         11         120S         120E         4300730188         11503         Fee         GW         PA           BRYNER A-1X (RIG SKID)         11         120S         120E         4300730209         11503         Fee         GW         PA           BLACKHAWK A-1         20         130S         100E         4300731402         17029         Fee         D         PA </td <td>ST 9-16</td> <td>16</td> <td>120S</td> <td>100E</td> <td>4300730132</td> <td>11402</td> <td>State</td> <td></td> <td></td>	ST 9-16	16	120S	100E	4300730132	11402	State		
SLEMAKER A-1         05         120S         120E         4300730158         11441         Fee         GW         PA           JENSEN 16-10         10         120S         100E         4300730161         11403         Fee         GW         PA           JENSEN 7-15         15         120S         100E         4300730165         11407         Fee         GW         PA           SHIMMIN TRUST 12-12         12         120S         100E         4300730168         11420         Fee         GW         PA           JENSEN 11-15         15         120S         100E         4300730175         11425         Fee         GW         PA           BRYNER A-1         11         120S         120E         4300730188         11503         Fee         GW         PA           BRYNER A-1X (RIG SKID)         11         120S         120E         4300730209         11503         Fee         GW         PA           BLACKHAWK A-1         20         130S         100E         4300731402         17029         Fee         D         PA           BLACKHAWK A-5H         20         130S         100E         4300731402         17029         Fee         D         PA <td>ST 2-16</td> <td>16</td> <td>120S</td> <td>100E</td> <td>4300730133</td> <td>11399</td> <td>State</td> <td></td> <td></td>	ST 2-16	16	120S	100E	4300730133	11399	State		
JENSEN 16-10         10         120S         100E         4300730161         11403         Fee         GW         PA           JENSEN 7-15         15         120S         100E         4300730165         11407         Fee         GW         PA           SHIMMIN TRUST 12-12         12         120S         100E         4300730168         11420         Fee         GW         PA           JENSEN 11-15         15         120S         100E         4300730175         11425         Fee         GW         PA           BRYNER A-1         11         120S         120E         4300730188         11503         Fee         GW         PA           BRYNER A-1X (RIG SKID)         11         120S         120E         4300730209         11503         Fee         GW         PA           BLACKHAWK A-1         20         130S         100E         4300730885         13798         Fee         D         PA           BLACKHAWK A-5H         20         130S         100E         4300731402         17029         Fee         D         PA	MATTS SUMMIT ST A-1	14	120S	090E	4300730141				
JENSEN 7-15  15  120S  100E  4300730165  11407  Fee  GW  PA  SHIMMIN TRUST 12-12  12  120S  100E  4300730168  11420  Fee  GW  PA  JENSEN 11-15  15  120S  100E  4300730175  11425  Fee  GW  PA  BRYNER A-1  11  120S  120E  4300730188  11503  Fee  GW  PA  BRYNER A-1X (RIG SKID)  11  120S  120E  4300730188  11503  Fee  GW  PA  BRYNER A-1X (RIG SKID)  11  120S  120E  4300730209  11503  Fee  GW  PA  BLACKHAWK A-1  20  130S  100E  4300730885  13798  Fee  D  PA  BLACKHAWK A-5H  20  130S  100E  4300731402  17029  Fee  D  PA	SLEMAKER A-1	05	120S	120E	4300730158	11441	Fee		
SHIMMIN TRUST 12-12       12       120S       100E       4300730168       11420       Fee       GW       PA         JENSEN 11-15       15       120S       100E       4300730175       11425       Fee       GW       PA         BRYNER A-1       11       120S       120E       4300730188       11503       Fee       GW       PA         BRYNER A-1X (RIG SKID)       11       120S       120E       4300730209       11503       Fee       GW       PA         BLACKHAWK A-1       20       130S       100E       4300730885       13798       Fee       D       PA         BLACKHAWK A-5H       20       130S       100E       4300731402       17029       Fee       D       PA	JENSEN 16-10	10	120S	100E	4300730161				
JENSEN 11-15       15       120S       100E       4300730175       11425       Fee       GW       PA         BRYNER A-1       11       120S       120E       4300730188       11503       Fee       GW       PA         BRYNER A-1X (RIG SKID)       11       120S       120E       4300730209       11503       Fee       GW       PA         BLACKHAWK A-1       20       130S       100E       4300730885       13798       Fee       D       PA         BLACKHAWK A-5H       20       130S       100E       4300731402       17029       Fee       D       PA	JENSEN 7-15	15	120S	100E	4300730165				
BRYNER A-1  BRYNER A-1  BRYNER A-1X (RIG SKID)  11 120S 120E 4300730188 11503 Fee GW PA  BRYNER A-1X (RIG SKID)  11 120S 120E 4300730209 11503 Fee GW PA  BLACKHAWK A-1  20 130S 100E 4300730885 13798 Fee D PA  BLACKHAWK A-5H  20 130S 100E 4300731402 17029 Fee D PA	SHIMMIN TRUST 12-12	12	120S	100E	4300730168				
BRYNER A-1X (RIG SKID) 11 120S 120E 4300730209 11503 Fee GW PA BLACKHAWK A-1 20 130S 100E 4300730885 13798 Fee D PA BLACKHAWK A-5H 20 130S 100E 4300731402 17029 Fee D PA	JENSEN 11-15	15	120S	100E	4300730175				
BLACKHAWK A-1 20 130S 100E 4300730885 13798 Fee D PA BLACKHAWK A-5H 20 130S 100E 4300731402 17029 Fee D PA	BRYNER A-1	11	120S	120E	4300730188	11503	Fee		
BLACKHAWK A-5H 20 130S 100E 4300731402 17029 Fee D PA	BRYNER A-1X (RIG SKID)	11	120S	120E	4300730209	11503	Fee		
DEMOCRATIC TO THE PROPERTY OF	BLACKHAWK A-1	20	130S	100E	4300730885				
CLAWSON SPRING ST SWD 3 06 160S 090E 4301530476 12978 State D PA	BLACKHAWK A-5H	20	130S		4300731402				
	<b>CLAWSON SPRING ST SWD 3</b>	06	160S	090E	4301530476		State	D	PA
HELPER FED C-6 21 130S 100E 4300730683 13008 Federal GW S	HELPER FED C-6	21	130S	100E					
UTAH 10-415 10 160S 080E 4301530391 12632 State GW TA	UTAH 10-415	10	160S	080E	4301530391	12632	State	GW	TA

	API Well Number	Well Name	Qtr/Qtr	Section	Township	Range	Mineral Lease Type	Mineral Lease Number	Well Status
1	4300730189	HELPER FED B-1	NESW	33	135	10E	Federal	USA UTU 71392	Producing
2	4300730190	HELPER FED A-1	C-SW	23	135	10E	Federal	USA UTU 58434	Producing
3	4300730213	HELPER FED A-3	SESE	22	135	10E	Federal	USA UTU 58434	Producing
4	4300730214	HELPER FED C-1	SENE	22	135	10E	Federal	USA UTU 71391	Producing
5	4300730215	HELPER FED B-5	NENE	27	135	10E	Federal	USA UTU 71392	Producing
6	4300730216	HELPER FED A-2	NESW	22	135	10E	Federal	USA UTU 58434	Producing
7	4300730286	HELPER FED D-1	SWNE	26	135	10E	Federal	USA UTU 68315	Producing
8	4300730378	HELPER FED F-3	NENE	8	145	10E	Federal	USA UTU 65762	Producing
9	4300730379	HELPER FED F-4	NWNW	9	14S	10E	Federal	USA UTU 65762	Producing
10	4300730508	HELPER FED E-7	SESE	19	135	10E	Federal	USA UTU 77980	Producing
11	4300730530	HELPER FED B-2	SENW	33	135	10E	Federal	USA UTU 71392	Producing
12	4300730531	HELPER FED B-3	NESE	33	135	10E	Federal	USA UTU 71392	Producing
13	4300730532	HELPER FED B-4	NENE	33	135	10E	Federal	USA UTU 71392	Producing
14	4300730533	HELPER FED B-6	NENW	27	135	10E	Federal	USA UTU 71392	Producing
15	4300730534	HELPER FED B-7	NESW	27	135	10E	Federal	USA UTU 71392	Producing
16	4300730535	HELPER FED B-8	SESE	27	135	10E	Federal	USA UTU 71392	Producing
17	4300730536	HELPER FED B-9	SENW	34	135	10E	Federal	USA UTU 71392	Producing
18	4300730537	HELPER FED B-10	NWNE	34	135	10E	Federal	USA UTU 71392	Producing
19	4300730538	HELPER FED B-11	SESW	34	135	10E	Federal	USA UTU 71392	Producing
20	4300730539	HELPER FED B-12	NESE	34	135	10E	Federal	USA UTU 71392	Producing
21	4300730540	HELPER FED B-13	SWSE	28	135	10E	Federal	USA UTU 71392	Producing
22	4300730541	HELPER FED B-14	SWSW	28	135	10E	Federal	USA UTU 71392	Producing
23	4300730542	HELPER FED D-2	SWNW	26	135	10E	Federal	USA UTU 68315	Producing
24	4300730543	HELPER FED D-3	SESW	26	135	10E	Federal	USA UTU 68315	Producing
25	4300730544	HELPER FED D-4	NWNW	35	135	10E	Federal	USA UTU 68315	Producing
26	4300730545	HELPER FED D-5	SESW	35	135	10E	Federal	USA UTU 68315	Producing
27	4300730546	HELPER FED D-6	NWSE	35	135	10E	Federal	USA UTU 68315	Producing
28	4300730547	HELPER FED E-1	NESE	29	135	10E	Federal	USA UTU 71675	Producing
29	4300730548	HELPER FED E-2	SESW	29	135	10E	Federal	USA UTU 71675	Producing
30	4300730549	HELPER FED H-1	NENW	1	145	10E	Federal	USA UTU 72352	Producing
31	4300730550	HELPER FED H-2	SESW	1	145	10E	Federal	USA UTU 72352	Producing
32	4300730556	OLIVETO FED A-2	NESW	8	14S	10E	Federal	USA UTU 65762	Producing
33	4300730557	HELPER FED F-1	SESE	8	145	10E	Federal	USA UTU 65762	Producing
34	4300730558	SMITH FED A-1	NWSW	9	145	10E	Federal	USA UTU 65762	Producing
35	4300730593	HELPER FED A-6	SESE	23	<b>13</b> S	10E	Federal	USA UTU 58434	Producing
36	4300730594	HELPER FED D-7	C-SE	26	135	10E	Federal	USA UTU 68315	Producing
37	4300730595	HELPER FED D-8	NENE	35	135	10E	Federal	USA UTU 68315	Producing
38	4300730677	HELPER FED A-5	NENE	23	13S	10E	Federal	USA UTU 58434	Producing
39	4300730678	HELPER FED A-7	SENW	22	135	10E	Federal	USA UTU 58434	Producing
40	4300730679	HELPER FED B-15	SENE	28	135	10E	Federal	USA UTU 71392	Producing
41	4300730680	HELPER FED B-16	SWNW	28	135	10E	Federal	USA UTU 71392	Producing
42	4300730681	HELPER FED C-2	NENW	24	13S	10E	Federal	USA UTU 71391	Producing

	API Well Number	Well Name	Qtr/Qtr	Section	Township	Range	Mineral Lease Type	Mineral Lease Number	Well Status
43	4300730682	HELPER FED C-4	NWSW	24	135	10E	Federal	USA UTU 71391	Producing
44	4300730683	HELPER FED C-6	SWSE	21	13S	10E	Federal	USA UTU 71391	Shut-In
45	4300730684	HELPER FED C-7	SESW	21	135	10E	Federal	USA UTU 71391	Producing
46	4300730685	HELPER FED D-9	NWNW	25	135	10E	Federal	USA UTU 68315	Producing
47	4300730686	HELPER FED D-10	SENE	25	13S	10E	Federal	USA UTU 68315	Producing
48	4300730687	HELPER FED D-11	SESW	25	135	10E	Federal	USA UTU 68315	Producing
49	4300730688	HELPER FED D-12	SESE	25	135	10E	Federal	USA UTU 68315	Producing
50	4300730689	HELPER FED E-4	NWNE	29	135	10E	Federal	USA UTU 71675	Producing
51	4300730692	HELPER FED A-4	SWNW	23	135	10E	Federal	USA UTU 58434	Producing
52	4300730693	HELPER FED C-5	SWNE	24	135	10E	Federal	USA UTU 71391	Producing
53	4300730694	HELPER FED G-1	C-NW	30	135	11E	Federal	USA UTU 71677	Producing
54	4300730695	HELPER FED G-2	swsw	30	135	11E	Federal	USA UTU 71677	Producing
55	4300730696	HELPER FED G-3	SENW	31	135	11E	Federal	USA UTU 71677	Producing
56	4300730697	HELPER FED G-4	SESW	31	135	11E	Federal	USA UTU 71677	Producing
57	4300730698	HELPER FED H-3	SWNE	1	145	10E	Federal	USA UTU 72352	Producing
58	4300730699	HELPER FED H-4	NESE	1	14S	10E	Federal	USA UTU 72352	Producing
59	4300730702	HELPER FED C-3	SESW	24	135	10E	Federal	USA UTU 71391	Producing
60	4300730770	HELPER FED G-5	SWNE	30	135	11E	Federal	USA UTU 71677	Producing
61	4300730771	HELPER FED G-6	SWSE	30	135	11E	Federal	USA UTU 71677	Producing
62	4300730772	HELPER FED G-7	NWNE	31	135	11E	Federal	USA UTU 71677	Producing
63	4300730773	HELPER FED G-8	NESE	31	135	11E	Federal	USA UTU 71677	Producing
64	4300730776	HELPER FED E-8	SENE	19	135	10E	Federal	USA UTU 77980	Producing
65	4300730868	HELPER FED E-9	SESW	19	135	10E	Federal	USA UTU 77980	Producing
66	4300730869	HELPER FED E-5	swsw	20	135	10E	Federal	USA UTU 71675	Producing
67	4300730870	HELPER FED E-6	SWNW	20	135	10E	Federal	USA UTU 71675	Producing
68	4300730871	HELPER FED E-10	NENW	30	135	10E	Federal	USA UTU 71675	Producing
69	4300730873	HELPER FED E-11	NWNE	30	135	10E	Federal	USA UTU 71675	Producing
70	4300730119	SHIMMIN TRUST 3	SENW	14	125	10E	Fee (Private)		Plugged and Abandoned
71	4300730120	SHIMMIN TRUST 1	SESE	11	125	10E	Fee (Private)		Plugged and Abandoned
72	4300730121	SHIMMIN TRUST 2	SENE	14	125	10E	Fee (Private)		Plugged and Abandoned
73	4300730123	SHIMMIN TRUST 4	SESW	11	12S	10E	Fee (Private)		Plugged and Abandoned
74	4300730158	SLEMAKER A-1	SWNE	5	12S	12E	Fee (Private)		Plugged and Abandoned
75	4300730161	JENSEN 16-10	SESE	10	12S	10E	Fee (Private)		Plugged and Abandoned
76	4300730165	JENSEN 7-15	SWNE	15	12S	10E	Fee (Private)		Plugged and Abandoned
77	4300730168	SHIMMIN TRUST 12-12	NWSW	12	12S	10E	Fee (Private)		Plugged and Abandoned
78	4300730175	JENSEN 11-15	NESW	15	125	10E	Fee (Private)		Plugged and Abandoned
79	4300730188	BRYNER A-1	NESE	11	12S	12E	Fee (Private)		Plugged and Abandoned
80	4300730209	BRYNER A-1X (RIG SKID)	NESE	11	12S	12E	Fee (Private)		Plugged and Abandoned
81	4300730348	BIRCH A-1	NWSW	5	14S	10E	Fee (Private)		Producing
82	4300730352	CHUBBUCK A-1	NESE	31	13S	10E	Fee (Private)		Producing
83	4300730353	VEA A-1	SWNW	32	135	10E	Fee (Private)		Producing
84	4300730354	VEA A-2	NENE	32	13S	10E	Fee (Private)		Producing

	API Well Number	Well Name	Qtr/Qtr	Section	Township	Range	Mineral Lease Type	Mineral Lease Number	Well Status
85	4300730355	VEA A-3	SESW	32	<b>13</b> S	10E	Fee (Private)		Producing
86	4300730356	VEA A-4	NWSE	32	13S	10E	Fee (Private)		Producing
87	4300730372	BIRCH A-2	NWNW	8	145	10E	Fee (Private)		Producing
88	4300730570	SE INVESTMENTS A-1	NESE	6	145	10E	Fee (Private)		Producing
89	<u> </u>	HARMOND A-1	SENE	7	145	10E	Fee (Private)		Producing
90	4300730604	CHUBBUCK A-2	SENW	6	14S	10E	Fee (Private)		Producing
91	4300730726	CLAWSON SPRING ST J-1	SESW	35	15\$	8E	Fee (Private)		Producing
92	4300730727	PIERUCCI 1	SENW	35	158	8E	Fee (Private)		Producing
93	4300730728	POTTER ETAL 1	SWNE	35	15\$	8E	Fee (Private)		Producing
94	4300730737	POTTER ETAL 2	NESE	35	158	8E	Fee (Private)		Producing
95	4300730774	GOODALL A-1	NWSW	6	14S	11E	Fee (Private)		Producing
96	4300730781	HAUSKNECHT A-1	SWNW	21	135	10E	Fee (Private)		Producing
97	4300730872	SACCOMANNO A-1	NESE	30	135	10E	Fee (Private)		Producing
98	4300730885	BLACKHAWK A-1	SESE	20	135	10E	Fee (Private)		Plugged and Abandoned
99	4300730886	BLACKHAWK A-2	NWNW	29	135	10E	Fee (Private)		Producing
100	4300730914	BLACKHAWK A-3	SENE	20	13S	10E	Fee (Private)		Producing
101	4300730915	BLACKHAWK A-4	NENE	21	135	10E	Fee (Private)		Producing
102	4300730923	BLACKHAWK A-1X	SESE	20	135	10E	Fee (Private)		Producing
103	4300731402	BLACKHAWK A-5H	NENE	20	135	10E	Fee (Private)		Plugged and Abandoned
104	4300750075	VEA 32-32	SWNE	32	135	10E	Fee (Private)		Producing
105	4301530468	CLAWSON SPRING ST IPA-1	SESE	10	165	8E	Fee (Private)		Producing
106	4301530469	CLAWSON SPRING ST IPA-2	NENE	15	16S	8E	Fee (Private)		Producing
107	4300730132	ST 9-16	NESE	16	12S	10E	State	ML-44443	Plugged and Abandoned
108	4300730133	ST 2-16	NWNE	16	125	10E	State	ML-44443	Plugged and Abandoned
109	4300730141	MATTS SUMMIT ST A-1	NWNW	14	125	9E	State	ML-44496	Plugged and Abandoned
110	4300730349	HELPER ST A-1	SENW	3	145	10E	State	ST UT ML 45805	Producing
111	4300730350	HELPER ST D-7	NWSW	4	145	10E	State	ST UT ML 45804	Producing
112	4300730357	HELPER ST A-8	NWSE	2	145	10E	State	ST UT ML 45805	Producing
113	4300730358	HELPER ST A-3	NWNW	2	145	10E	State	ST UT ML 45805	Producing
114	4300730359	HELPER ST A-4	NWNE	2	145	10E	State	ST UT ML 45805	Producing
115	4300730360	HELPER ST A-7	NESW	2	14S	10E	State	ST UT ML 45805	Producing
116	4300730362	HELPER ST A-2	NENE	3	145	10E	State	ST UT ML 45805	Producing
117	4300730363	HELPER ST A-5	NESW	3	145	10E	State	ST UT ML 45805	Producing
118	4300730364	HELPER ST A-6	NESE	3	14S	10E	State	ST UT ML 45805	Producing
119	4300730365	HELPER ST D-4	SWNW	4	145	10E	State	ST UT ML 45804	Producing
120	4300730366	HELPER ST D-3	NENE	5	145	10E	State	ST UT ML 45804	Producing
121	4300730367	HELPER ST D-5	NWNE	4	145	10E	State	ST UT ML 45804	Producing
122	4300730368	HELPER ST D-8	SESE	4	145	10E	State	ST UT ML 45804	Producing
123	4300730369	HELPER ST D-2	NENW	5	145	10E	State	ST UT ML 45804	Producing
124	4300730370	HELPER ST D-6	SESE	5	145	10E	State	ST UT ML 45804	Producing
125	4300730371	HELPER ST D-1	NENE	6	14S	10E	State	ST UT ML 45804	Producing
126	4300730373	HELPER ST A-9	SENW	10	14S	10E	State	ST UT ML 45805	Producing

	API Well Number	Well Name	Qtr/Qtr	Section	Township	Range	Mineral Lease Type	Mineral Lease Number	Well Status
127	4300730376	HELPER ST B-1	SWNE	9	145	10E	State	ST UT ML 47556	Producing
128	4300730433	HELPER ST A-10	NWNE	10	<b>14</b> S	10E	State	ST UT ML 45805	Producing
129	4300730434	HELPER ST A-11	SWNW	11	145	10E	State	ST UT ML 45805	Producing
130	4300730435	HELPER ST A-12	NWSW	10	14S	10E	State	ST UT ML 45805	Producing
131	4300730436	HELPER ST A-13	NESE	10	145	10E	State	ST UT ML 45805	Producing
132	4300730437	HELPER ST B-2	NESE	9	14S	10E	State	ST UT ML 47556	Producing
133	4300730571	HELPER ST A-14	SESW	11	145	10E	State	ST UT ML 45805	Producing
134	4300730572	HELPER ST A-15	SENE	11	145	10E	State	ST UT ML 45805	Producing
135	4300730573	HELPER ST E-1	SESW	36	13S	10E	State	ST UT ML 45802	Producing
136	4300730574	HELPER ST E-2	SWNW	36	135	10E	State	ST UT ML 45802	Producing
137	4300730592	HELPER ST E-3	NENE	36	135	10E	State	ST UT ML 45802	Producing
138	4300730597	CLAWSON SPRING ST A-1	SWSE	36	158	8E	State	ST UT ML 46106	Producing
139	4300730598	HELPER ST E-4	SWSE	36	135	10E	State	ST UT ML 45802	Producing
140	4300730603	HELPER ST A-16	SWSE	11	145	10E	State	ST UT ML 45805	Producing
141	4300730635	CLAWSON SPRING ST A-2	NWNW	36	15\$	8E	State	ST UT ML 46106	Producing
142	4300730636	CLAWSON SPRING ST A-3	NESW	36	15S	8E	State	ST UT ML 46106	Producing
143	4300730637	CLAWSON SPRING ST A-4	NWNE	36	15S	8E	State	ST UT ML 46106	Producing
144	4300730642	CLAWSON SPRING ST D-5	NENW	31	15S	9E	State	ML-48226	Producing
145	4300730643	CLAWSON SPRING ST D-6	SWSW	31	15S	9E	State	ML-48226	Producing
146	4300730644	CLAWSON SPRING ST D-7	NWNE	31	158	9E	State	ML-48226	Producing
147	4300730701	CLAWSON SPRING ST D-8	NWSE	31	15\$	9E	State	ML-48226	Producing
148	4300750070	HELPER STATE 12-3	SWNW	3	14S	10E	State	ST UT ML 45805	Producing
149	4300750071	HELPER STATE 32-3	SWNE	3	14S	10E	State	ST UT ML 45805	Producing
150	4300750072	HELPER STATE 32-36	SWNE	36	135	10E	State	ST UT ML 45802	Producing
151	4301530391	UTAH 10-415	NENE	10	165	8E	State	ST UT ML 48189	Temporarily-Abandoned
152	4301530392	CLAWSON SPRING ST E-7	SENE	7	165	9E	State	ST UT ML 48220-A	Producing
153	4301530394	CLAWSON SPRING ST E-8	SWSE	7	165	9E	State	ST UT ML 48220-A	Producing
154	4301530403	CLAWSON SPRING ST E-3	SENE	6	168	9E	State	ST UT ML 48220-A	Producing
155	4301530404	CLAWSON SPRING ST E-1	SENW	6	168	9E	State	ST UT ML 48220-A	Producing
156	4301530405	CLAWSON SPRING ST E-2	NESW	6	168	9E	State	ST UT ML 48220-A	Producing
157	4301530406	CLAWSON SPRING ST E-4	NWSE	6	168	9E	State	ST UT ML 48220-A	Producing
158	4301530410	CLAWSON SPRING ST C-1	SWNW	12	165	8E	State	ST UT UO 48209	Producing
159	4301530427	CLAWSON SPRING ST B-1	NENW	1	168	8E	State	ST UT ML 48216	Producing
160	4301530428	CLAWSON SPRING ST B-2	NWSW	1	165	8E	State	ST UT ML 48216	Producing
161	4301530429	CLAWSON SPRING ST B-3	NWNE	1	168	8E	State	ST UT ML 48216	Producing
162	4301530430	CLAWSON SPRING ST B-4	SESE	1	165	8E	State	ST UT ML 48216	Producing
163	4301530431	CLAWSON SPRING ST B-5	SWSW	12	168	8E	State	ST UT ML 48216	Producing
164	4301530432	CLAWSON SPRING ST B-8	SENE	11	168	8E	State	ST UT ML 48216	Producing
165	4301530433	CLAWSON SPRING ST B-9	NWSE	11	168	8E	State	ST UT ML 48216	Producing
166	4301530434	CLAWSON SPRING ST C-2	SENE	12	165	8E	State	ST UT UO 48209	Producing
167	4301530435	CLAWSON SPRING ST C-4	SWNW	14	16S	8E	State	ST UT UO 48209	Producing
168	4301530460	CLAWSON SPRING ST B-7	NWSW	11	168	8E	State	ST UT ML 48216	Producing

	API Well Number	Well Name	Qtr/Qtr	Section	Township	Range	Mineral Lease Type	Mineral Lease Number	Well Status
169	4301530461	CLAWSON SPRING ST C-6	SENE	14	165	8E	State	ST UT UO 48209	Producing
170	4301530463	CLAWSON SPRING ST C-3	C-SE	12	16S	8E	State	ST UT UO 48209	Producing
171	4301530465	CLAWSON SPRING ST B-6	NENW	11	16S	8E	State	ST UT ML 48216	Producing
172	4301530466	CLAWSON SPRING ST H-1	NENW	13	16S	8E	State	ST UT ML 48217-A	Producing
173	4301530467	CLAWSON SPRING ST H-2	NENE	13	16S	8E	State	ST UT ML 48217-A	Producing
174	4301530470	CLAWSON SPRING ST E-5	NENW	7	165	9E	State	ST UT ML 48220-A	Producing
175	4301530471	CLAWSON SPRING ST G-1	NWNW	2	165	8E	State	ST UT ML 46314	Producing
176	4301530472	CLAWSON SPRING ST F-2	NESE	3	16S	8E	State	ST UT ML 48515	Producing
177	4301530473	CLAWSON SPRING ST F-1	SENE	3	16S	8E	State	ST UT ML 48514	Producing
178	4301530474	CLAWSON SPRING ST E-6	SESW	7	168	9E	State	ST UT ML 48220-A	Producing
179	4301530475	CLAWSON SPRING ST G-2	NESW	2	<b>16</b> S	8E	State	ST UT ML 46314	Producing
180	4301530488	CLAWSON SPRING ST M-1	NWNE	2	168	8E	State	ST UT ML 47561	Producing
181	4301530489	CLAWSON SPRING ST K-1	SESE	2	168	8E	State	ST UT ML 46043	Producing